

**Armangite,  $Mn_{26}^{2+} [As_6^{3+} (OH)_4 O_{14}] [As_6^{3+} O_{18}]_2 [CO_3]$ , a fluorite derivative structure**

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**Abstract**

Armangite,  $Mn_{26}^{2+} [As_6^{3+} (OH)_4 O_{14}] [As_6^{3+} O_{18}]_2 [CO_3]$ ,  $a_1 = 13.491(2)$ ,  $c = 8.855(1)A$ ,  $Z = 1$ ,  $P\bar{3}$ , was studied in detail by three-dimensional X-ray diffractometry.  $R = 0.072$  ( $R_w = 0.056$ ) for all 4012 non-equivalent reflections, and  $R = 0.043$  for 2749 observable reflections above three times background error. X-ray diffraction data to  $\sin\theta/\lambda = 0.80$  (MoK $\alpha$  radiation, graphite monochromator) were collected on a Picker four-circle diffractometer, and the structure was solved by Patterson, Fourier, difference synthesis, and least-squares refinement techniques. The  $[CO_3]$  group was located on a difference synthesis, confirmed by electron probe analysis on select pure grains.

The structure is an anion-deficient fluorite derivative structure where  $a_1$  (arm) =  $2\sqrt{2} a_1$  (flu) and  $c$  (arm) =  $\sqrt{3} a_1$  (flu) corresponding to a 4.94A fluorite average edge. The fluorite stoichiometry is  $X_{48}\phi_{96}$ , where  $48X = 26Mn^{2+} + 18As^{3+} + 1(CO_3) + 3\Box(1)$ , the cation vacancies occurring at  $\frac{1}{2} \frac{1}{2} 0$ , etc.; and  $96\phi = 54 O(1)$  through  $O(9) + 42\Box(a)$  through  $\Box(i)$ . Bond distance averages are  $^{13}C-O$  1.30,  $^{131}As(1)-O$  1.78,  $^{131}As(2)-O$  1.78,  $^{131}As(3)-O$  1.79,  $^{161}Mn(1)-O$  2.21,  $^{161}Mn(2)-O$  2.22,  $^{161}Mn(3)-O$  2.22,  $^{161}Mn(4)-O$  2.24, and  $^{161}Mn(5)-O$  2.22A. The  $(CO_3)$  groups are disordered so  $O(10)$  is on the average only half-occupied. A cluster of composition  $Mn_6^{2+} As_6^{3+} C^{4+} O_{33}$  can be extracted which is related to the arrangement in the  $Fe^{3+}$  oxyphosphate sheet of mitridatite, which also locally is a fluorite derivative structure.  $Mn(1)$ ,  $Mn(2)$ ,  $Mn(3)$ , and  $Mn(5)$  are distorted octahedra,  $Mn(4)$  is a distorted trigonal prism, and  $As(1)$ ,  $As(2)$ , and  $As(3)$  are distorted trigonal pyramids. Local environments in armangite are similar to those in magnussonite, a related structure, but central  $Mn^{+}$  in armangite is missing.

**Introduction**

Armangite, originally described by Aminoff and Mauzelius (1920), occurred as a rare late-stage mineral in basic, reduced veins with calcite and barite from Langban, Sweden. These authors interpreted the original analysis as including the presence of an admixed carbonate, and deduction of these impurities led to the relatively simple composition  $Mn_3^{2+} (AsO_3)_2$ . Despite the simple composition the cell contains nine formula units, and question arose regarding the possible space groups (originally listed as rhombohedral) despite the trigonal development of the crystals. Our study shows that the extinction criteria definitely belong to a trigonal group, specifically  $P\bar{3}$ , and that the compound does not possess such a simple composition.

Work on armangite's structure was initiated by the senior author ten years ago, but the problem was

abandoned owing to its inherent difficulty. Not until our study on the compositionally-related magnussonite (Moore and Araki, 1979) did we discover a relationship between these phases and the relatively simple and versatile fluorite structure type. This relationship, coupled with the presence of arsenite groups which include lone pair electrons, revitalized our interest in the problem.

**Experimental section**

A small fragment of Flink unknown U71 (from the Swedish Natural History Museum) showed pale brown hexagonal prisms embedded in dolomite-hausmannite rock. It was investigated fourteen years ago and shown to be identical with armangite through single-crystal X-ray and powder photography. More recently, a fragment of specimen R5795 (National Museum of Natural History, Smithsonian

	H	K	L	FD	FC	H	K	L	FD	FC	H	K	L	FD	FC	H	K	L	FD	FC
1	0	0	0	5.4	7.1	12	7	0	8.6	3.6	1	2	1	6.8	4.8	2	8	1	47.1	47.1
2	0	0	0	122.6	126.2	13	7	0	14.3	16.9	3	2	1	36.0	37.7	3	8	1	10.7	14.4
3	0	0	0	66.4	93.1	14	7	0	25.5	27.4	3	2	1	33.8	31.2	4	8	1	335.9	334.4
4	0	0	0	127.7	134.7	1	8	0	167.9	171.6	4	2	1	46.4	49.0	5	8	1	13.8	17.9
5	0	0	0	93.8	55.6	2	8	0	43.9	44.0	5	2	1	92.4	93.4	6	8	1	120.4	121.4
6	0	0	0	15.4	18.0	3	8	0	78.0	79.9	6	2	1	82.3	83.4	7	8	1	67.6	74.0
7	0	0	0	32.0	31.7	4	8	0	142.5	144.8	7	2	1	98.0	99.0	8	8	1	115.5	116.8
8	0	0	0	171.7	174.3	5	8	0	8.6	7.1	8	2	1	52.8	52.7	9	8	1	29.7	29.1
9	0	0	0	29.1	21.1	6	8	0	68.1	67.9	9	2	1	7.3	7.0	10	8	1	24.7	26.6
10	0	0	0	185.1	188.3	7	8	0	25.0	29.1	10	2	1	11.6	6.4	11	8	1	35.4	32.4
11	0	0	0	8.5	9.1	8	8	0	198.2	206.8	11	2	1	8.2	5.0	12	8	1	68.3	66.3
12	0	0	0	201.0	296.1	9	8	0	21.1	21.3	12	2	1	7.9	5.6	13	8	1	24.5	18.2
13	0	0	0	67.6	65.0	10	8	0	63.2	62.8	13	2	1	49.0	46.2	14	8	1	96.7	99.6
14	0	0	0	20.7	26.1	11	8	0	22.7	25.7	14	2	1	28.8	30.4	15	8	1	6.5	8.1
15	0	0	0	36.4	34.7	12	8	0	59.6	59.9	15	2	1	45.3	44.5	16	8	1	20.8	17.5
16	0	0	0	52.6	48.6	13	8	0	47.2	43.7	16	2	1	19.1	10.3	17	8	1	57.6	61.7
17	0	0	0	22.3	16.8	1	9	0	6.0	1.9	17	2	1	11.4	11.3	18	8	1	27.0	31.3
18	0	0	0	17.8	17.1	2	9	0	20.7	19.7	1	2	1	71.9	71.9	1	9	1	27.8	27.9
1	1	1	1	36.8	28.5	3	9	0	25.3	25.1	-2	3	1	202.2	204.3	-2	9	1	92.5	91.1
2	1	1	1	66.9	67.5	4	9	0	55.4	56.5	0	3	1	42.2	43.2	-1	9	1	24.0	21.3
3	1	1	1	12.9	10.5	5	9	0	9.2	9.7	1	3	1	123.1	121.9	0	9	1	7.8	1.7
4	1	1	1	40.4	39.3	6	9	0	24.5	23.9	2	3	1	41.6	41.9	1	9	1	49.4	51.7
5	1	1	1	29.5	29.9	7	9	0	117.6	121.4	3	3	1	101.0	100.8	2	9	1	25.5	27.3
6	1	1	1	16.0	14.3	4	9	0	35.7	42.0	4	3	1	12.4	10.8	3	9	1	78.6	81.2
7	1	1	1	33.2	30.5	5	9	0	16.0	19.1	5	3	1	151.5	148.2	4	9	1	52.0	51.9
8	1	1	1	107.4	106.2	6	9	0	14.3	2.4	6	3	1	92.6	93.0	5	9	1	16.2	22.0
9	1	1	1	6.2	6.2	7	9	0	39.7	41.1	7	3	1	77.4	77.3	6	9	1	14.1	12.6
10	1	1	1	14.9	15.2	8	9	0	47.1	42.4	8	3	1	77.7	74.6	7	9	1	40.6	36.9
11	1	1	1	82.1	80.2	9	9	0	15.9	22.3	9	3	1	154.1	149.1	8	9	1	81.5	80.9
12	1	1	1	47.1	44.5	10	9	0	54.6	54.7	10	3	1	47.8	46.1	9	9	1	42.9	47.5
13	1	1	1	50.1	46.8	11	9	0	79.8	81.2	11	3	1	58.0	54.1	9	9	1	44.5	45.2
14	1	1	1	12.0	11.9	12	9	0	12.6	13.6	12	3	1	11.4	9.7	10	9	1	38.5	40.3
15	1	1	1	34.7	35.3	13	9	0	38.0	38.8	13	3	1	26.4	18.5	11	9	1	30.6	26.0
16	1	1	1	45.4	41.8	14	9	0	19.3	18.3	14	3	1	29.3	34.1	12	9	1	65.8	69.4
17	1	1	1	37.7	35.7	15	9	0	32.4	32.1	15	3	1	13.2	3.7	13	9	1	80.0	80.7
18	1	1	1	16.5	21.1	16	9	0	49.9	52.0	16	3	1	18.6	13.3	14	9	1	85.5	89.6
1	2	2	2	93.3	51.8	3	10	0	23.0	22.7	-3	4	1	63.1	63.0	-6	10	1	17.6	16.6
2	2	2	2	130.1	127.1	4	10	0	62.1	64.0	-2	4	1	43.8	45.0	-5	10	1	62.7	63.1
3	2	2	2	103.3	101.2	11	10	0	10.2	8.0	-1	4	1	95.2	95.9	-4	10	1	129.9	128.5
4	2	2	2	26.6	25.1	1	11	0	66.0	68.1	0	4	1	929.6	879.8	-3	10	1	36.8	32.8
5	2	2	2	71.8	71.0	2	11	0	36.5	36.8	1	4	1	90.6	93.8	-2	10	1	62.9	63.6
6	2	2	2	159.3	155.9	3	11	0	78.1	80.8	2	4	1	228.0	222.4	-1	10	1	52.7	51.2
7	2	2	2	10.8	8.2	4	11	0	19.7	22.0	3	4	1	6.7	5.3	0	10	1	44.4	45.4



8	2	0	0	39.3	39.6	5	11	0	9.9	3.5	4	4	1	221.5	214.2	1	10	1	48.8	50.5
9	2	0	0	15.3	1.1	6	11	0	27.0	28.4	5	4	1	29.4	33.5	2	10	1	99.7	100.9
10	2	0	0	10.5	7.9	7	11	0	19.3	23.1	6	4	1	8.7	0.9	3	10	1	29.1	29.0
11	2	0	0	11.4	16.0	8	11	0	14.9	13.8	7	4	1	53.0	54.4	4	10	1	6.7	2.3
12	2	0	0	87.9	81.7	9	11	0	12.6	14.7	8	4	1	121.8	116.6	5	10	1	42.7	42.7
13	2	0	0	44.9	43.0	10	11	0	14.0	21.8	9	4	1	14.1	4.2	6	10	1	25.7	22.8
14	2	0	0	31.6	34.4	11	12	0	32.0	32.6	10	4	1	154.1	146.9	7	10	1	12.2	11.7
15	2	0	0	11.2	6.9	12	12	0	95.3	97.3	11	4	1	21.0	8.7	8	10	1	59.2	62.3
16	2	0	0	12.2	11.4	13	12	0	22.1	27.1	12	4	1	179.0	173.7	9	10	1	8.1	2.6
17	2	0	0	11.3	16.0	14	12	0	63.5	64.3	13	4	1	13.1	24.0	10	10	1	13.8	6.8
1	3	0	0	113.4	114.4	15	12	0	47.8	48.5	14	4	1	78.4	72.5	11	10	1	39.8	44.1
2	3	0	0	11.7	13.4	16	12	0	21.8	26.7	15	4	1	10.6	9.5	12	10	1	74.6	75.3
3	3	0	0	24.9	24.9	17	12	0	49.7	51.5	16	4	1	61.9	58.9	13	10	1	6.3	11.5
4	3	0	0	95.5	91.2	18	12	0	59.8	60.0	17	4	1	102.2	105.3	14	10	1	7.4	8.6
5	3	0	0	197.1	194.7	19	12	0	8.4	5.3	18	4	1	48.9	49.0	15	10	1	24.8	21.6
6	3	0	0	64.8	64.8	20	12	0	9.3	3.0	19	4	1	14.7	16.6	16	10	1	69.0	71.5
7	3	0	0	100.7	55.8	21	13	0	37.9	37.3	20	4	1	79.2	78.9	17	10	1	80.3	84.9
8	3	0	0	15.1	17.2	22	13	0	80.3	80.1	21	4	1	6.2	8.7	18	10	1	69.3	71.2
9	3	0	0	64.7	61.1	23	13	0	38.8	38.9	22	4	1	95.9	102.2	19	10	1	25.8	23.2
10	3	0	0	43.4	43.8	24	13	0	70.3	69.7	23	4	1	80.0	80.9	20	10	1	10.5	4.1
11	3	0	0	11.5	12.7	25	13	0	32.1	33.4	24	4	1	11.0	12.2	21	10	1	100.9	99.2
12	3	0	0	45.9	42.5	26	13	0	17.0	20.9	25	4	1	85.0	85.4	22	10	1	37.8	40.0
13	3	0	0	75.8	70.4	27	13	0	13.0	11.7	26	4	1	11.5	12.6	23	10	1	25.1	23.9
14	3	0	0	35.7	28.8	28	14	0	22.2	23.2	27	4	1	7.2	7.2	24	10	1	50.2	50.9
15	3	0	0	77.8	76.6	29	14	0	9.2	9.9	28	4	1	74.0	73.7	25	10	1	50.0	46.2
16	3	0	0	17.0	8.2	30	14	0	9.6	5.4	29	4	1	93.2	93.9	26	10	1	47.5	51.9
17	3	0	0	9.9	2.8	31	14	0	92.3	92.7	30	4	1	7.0	13.9	27	10	1	77.1	79.4
1	4	0	0	53.8	54.6	32	14	0	15.0	26.1	31	4	1	41.5	41.8	28	10	1	10.7	9.8
2	4	0	0	26.5	25.9	33	14	0	28.8	29.5	32	4	1	87.0	86.9	29	10	1	15.2	14.3
3	4	0	0	37.1	37.0	34	14	0	21.7	24.6	33	4	1	23.8	20.9	30	10	1	15.2	14.3
4	4	0	0	783.7	731.4	35	15	0	13.8	8.8	34	4	1	19.9	18.8	31	10	1	8.8	8.8
5	4	0	0	8.0	2.7	36	15	0	44.6	46.1	35	4	1	15.5	24.0	32	10	1	8.5	8.2
6	4	0	0	49.5	48.0	37	15	0	10.4	5.4	36	4	1	22.1	23.1	33	10	1	22.2	22.2
7	4	0	0	8.4	8.4	38	15	0	12.7	8.6	37	4	1	35.5	35.1	34	10	1	20.3	23.4
8	4	0	0	145.1	140.8	39	15	0	15.0	4.6	38	4	1	66.3	67.3	35	10	1	80.6	79.0
9	4	0	0	50.1	50.0	40	16	0	21.2	26.8	39	4	1	54.7	55.8	36	10	1	86.5	88.7
10	4	0	0	8.5	2.4	41	16	0	13.0	19.5	40	4	1	177.5	173.9	37	10	1	19.0	15.5
11	4	0	0	44.2	43.1	42	16	0	43.1	42.1	41	4	1	5.4	4.9	38	10	1	13.3	14.0
12	4	0	0	94.6	91.6	43	16	0	133.2	131.3	42	4	1	7.7	6.6	39	10	1	107.1	107.8
13	4	0	0	28.7	31.3	44	17	0	9.8	4.1	43	4	1	105.7	111.7	40	10	1	343.4	335.7
14	4	0	0	85.0	81.8	45	17	0	11.2	9.2	44	4	1	98.5	86.7	41	10	1	152.8	148.6
15	4	0	0	17.5	16.9	46	17	0	71.9	74.7	45	4	1	15.7	16.5	42	10	1	124.2	119.2
16	4	0	0	118.0	109.7	47	18	0	26.2	28.5	46	4	1	163.2	162.7	43	10	1	18.6	17.0
1	5	0	0	46.3	49.6	48	18	0	103.2	114.3	47	4	1	16.0	14.9	44	10	1	122.8	121.6
2	5	0	0	86.4	88.5	49	18	0	3.9	6.3	48	4	1	13.7	14.9	45	10	1	62.6	65.3
3	5	0	0	143.3	143.5	50	18	0	86.6	92.8	49	4	1	58.3	60.2	46	10	1	7.0	59.9
4	5	0	0	54.5	53.1	51	18	0	8.8	7.2	50	4	1	9.6	4.3	47	10	1	57.4	55.9
5	5	0	0	59.1	60.5	52	18	0	13.1	22.7	51	4	1	30.1	22.7	48	10	1	74.6	74.3
6	5	0	0	7.2	1.4	53	18	0	37.3	35.2	52	4	1	22.4	13.3	49	10	1	33.1	39.3
7	5	0	0	39.9	38.2	54	18	0	168.3	171.1	53	4	1	18.0	14.1	50	10	1	32.5	33.4
8	5	0	0	117.3	117.0	55	18	0	39.2	38.3	54	4	1	45.0	46.7	51	10	1	17.0	21.8

9	5	0	15.3	17.7	8	0	1	485.5	482.6	13	6	1	8.5	9.2	8	12	1	124.4	124.1
10	5	0	59.5	55.5	5	0	1	74.5	73.0	14	6	1	58.3	57.3	9	12	1	11.5	5.5
11	5	0	41.5	39.9	10	0	1	66.5	68.0	-6	7	1	11.5	13.1	-12	13	1	22.7	23.3
12	5	0	93.0	90.6	11	0	1	25.2	24.5	-5	7	1	66.2	66.0	-11	13	1	27.5	32.6
13	5	0	10.5	5.7	12	0	1	155.1	150.5	-4	7	1	16.5	12.8	-10	13	1	10.6	7.9
14	5	0	15.0	16.4	13	0	1	12.4	9.9	-3	7	1	18.1	16.5	-9	13	1	49.7	53.9
15	5	0	80.2	77.6	14	0	1	7.5	4.4	-2	7	1	110.1	109.6	-8	13	1	55.2	56.5
1	6	0	81.9	66.1	15	0	1	8.1	7.2	-1	7	1	13.9	14.4	-7	13	1	6.4	4.4
2	6	0	122.4	122.5	16	0	1	18.5	18.4	0	7	1	93.4	95.1	-6	13	1	59.5	62.8
3	6	0	15.4	14.3	17	0	1	35.9	33.0	1	7	1	98.3	102.1	-5	13	1	22.7	26.2
4	6	0	10.4	13.2	18	0	1	83.6	79.8	2	7	1	19.2	17.0	-4	13	1	45.2	46.9
5	6	0	78.1	76.7	0	1	1	51.2	52.0	3	7	1	31.7	33.0	-3	13	1	53.3	55.2
6	6	0	13.6	10.2	1	1	1	9.9	12.5	4	7	1	25.5	24.4	-2	13	1	38.8	39.1
7	6	0	24.4	25.0	2	1	1	48.5	91.9	5	7	1	125.4	127.8	-1	13	1	117.3	111.5
8	6	0	83.1	65.2	3	1	1	166.1	164.7	6	7	1	22.2	21.4	0	13	1	29.1	30.1
9	6	0	8.3	6.1	4	1	1	33.8	33.5	7	7	1	85.2	88.4	1	13	1	48.1	47.2
10	6	0	33.4	23.7	5	1	1	23.1	24.9	8	7	1	15.4	9.0	2	13	1	11.9	6.8
11	6	0	67.8	70.1	6	1	1	37.2	35.2	9	7	1	40.4	39.7	3	13	1	9.5	5.2
12	6	0	34.8	34.0	7	1	1	37.8	40.2	10	7	1	28.5	31.9	4	13	1	9.2	19.3
13	6	0	12.6	10.8	8	1	1	29.1	29.1	11	7	1	16.2	1.4	5	13	1	18.5	19.3
14	6	0	31.4	29.2	9	1	1	44.9	81.3	12	7	1	21.7	14.5	6	13	1	47.0	44.8
1	7	0	5.5	7.8	10	1	1	25.6	21.6	13	7	1	38.6	38.6	7	13	1	84.7	84.2
2	7	0	33.6	33.4	11	1	1	45.4	43.3	14	7	1	46.9	45.4	8	13	1	56.4	61.1
3	7	0	64.7	67.0	12	1	1	108.1	100.5	-7	8	1	145.6	149.6	-13	14	1	30.9	33.2
4	7	0	104.3	103.7	12	1	1	48.2	47.3	-6	8	1	101.8	102.2	-12	14	1	7.5	5.0
5	7	0	120.4	124.0	14	1	1	65.8	60.8	-5	8	1	19.8	16.5	-11	14	1	8.6	12.8
6	7	0	39.8	40.3	15	1	1	25.8	26.0	-4	8	1	205.2	204.6	-10	14	1	164.4	167.1
7	7	0	20.3	20.6	16	1	1	78.2	71.2	-3	8	1	138.9	137.6	-9	14	1	46.7	49.1
8	7	0	12.1	16.1	17	1	1	20.2	8.1	-2	8	1	78.8	77.7	-8	14	1	28.4	25.7
9	7	0	51.3	52.0	18	1	1	5.1	3.8	-1	8	1	34.2	35.4	-7	14	1	29.6	31.9
10	7	0	13.3	7.0	-1	2	1	29.6	24.9	0	8	1	114.8	117.3	-6	14	1	81.2	86.0
11	7	0	23.4	28.2	0	2	1	55.5	57.0	1	8	1	25.0	25.2	-5	14	1	29.3	27.9



H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
-4	14	1	27.6	25.5	-9	21	1	40.3	42.1	2	6	2	32.3	30.7	-3	12	2	103.2	100.6
-3	14	1	36.7	36.5	-8	21	1	9.7	4.2	3	6	2	13.0	4.4	-2	12	2	6.8	1.4
-2	14	1	52.1	53.1	-7	21	1	31.8	30.0	4	6	2	8.0	4.3	-1	12	2	45.7	42.1
-1	14	1	39.2	38.1	0	0	2	11.9	11.6	5	6	2	80.2	77.3	0	12	2	108.6	107.6
0	14	1	128.8	126.6	1	0	2	89.1	94.5	6	6	2	52.3	52.8	1	12	2	17.5	24.1
1	14	1	55.1	57.2	2	0	2	55.4	97.9	7	6	2	6.7	3.7	2	12	2	24.3	26.5
2	14	1	13.5	15.2	3	0	2	17.9	19.2	8	6	2	13.7	6.0	3	12	2	13.4	0.6
3	14	1	50.1	52.4	4	0	2	591.9	592.3	9	6	2	11.4	5.6	4	12	2	172.6	175.5
4	14	1	19.3	14.6	5	0	2	7.2	2.5	10	6	2	51.6	53.0	5	12	2	7.7	11.2
5	14	1	8.0	3.6	6	0	2	127.8	130.5	11	6	2	17.6	24.0	6	12	2	97.7	100.7
6	14	1	10.4	18.7	7	0	2	27.9	25.8	12	6	2	17.6	18.8	7	12	2	57.8	59.7
7	14	1	12.4	10.8	8	0	2	194.4	196.5	13	6	2	12.2	8.2	8	12	2	25.5	27.9
-14	15	1	15.8	6.3	5	0	2	43.2	43.4	14	6	2	13.7	1.5	9	12	2	26.6	23.7
-13	15	1	9.4	6.1	10	0	2	72.4	72.0	-6	7	2	133.2	139.9	-12	13	2	78.1	76.3
-12	15	1	11.4	17.0	11	0	2	9.5	4.0	-5	7	2	81.9	83.0	-11	13	2	34.1	33.1
-11	15	1	39.2	38.7	12	0	2	75.1	72.9	-4	7	2	57.5	56.5	-10	13	2	66.1	68.6
-10	15	1	6.8	3.6	13	0	2	11.4	1.5	-3	7	2	31.3	31.1	-9	13	2	40.2	40.1
-9	15	1	51.1	51.9	14	0	2	145.4	138.6	-2	7	2	81.3	80.6	-8	13	2	28.2	27.5
-8	15	1	77.4	84.4	15	0	2	36.7	32.1	-1	7	2	118.5	120.3	-7	13	2	40.9	41.7
-7	15	1	13.1	17.2	16	0	2	157.6	153.7	0	7	2	57.5	60.5	-6	13	2	34.9	40.9
-6	15	1	24.2	23.9	17	0	2	28.8	27.6	1	7	2	89.7	93.1	-5	13	2	78.6	80.0
-5	15	1	21.6	21.3	18	0	2	77.2	74.5	2	7	2	5.8	2.2	-4	13	2	25.7	26.0
-4	15	1	17.3	23.0	0	1	2	18.6	20.8	3	7	2	134.6	136.0	-3	13	2	24.6	23.3
-3	15	1	5.6	3.7	1	1	2	63.5	63.6	4	7	2	14.1	9.1	-2	13	2	22.7	21.2
-2	15	1	36.9	35.8	2	1	2	126.7	125.5	5	7	2	97.7	95.6	-1	13	2	62.7	59.8
-1	15	1	10.3	6.6	3	1	2	6.5	5.1	6	7	2	29.4	36.0	0	13	2	12.8	18.9
0	15	1	14.5	0.6	4	1	2	84.6	87.1	7	7	2	35.1	37.8	1	13	2	23.3	22.1
1	15	1	9.3	13.2	5	1	2	53.8	54.9	8	7	2	49.4	46.6	2	13	2	35.3	35.4
2	15	1	34.2	21.6	6	1	2	12.6	1.9	9	7	2	81.7	82.2	3	13	2	40.5	43.8
3	15	1	60.9	64.0	7	1	2	12.0	9.5	10	7	2	46.0	44.3	4	13	2	74.3	77.6
4	15	1	14.3	10.8	8	1	2	86.3	87.7	11	7	2	53.1	47.7	5	13	2	7.9	9.6
5	15	1	11.6	15.7	9	1	2	54.7	51.7	12	7	2	30.8	29.9	6	13	2	14.2	15.7
-15	16	1	42.8	40.8	10	1	2	58.3	54.0	13	7	2	16.6	7.3	7	13	2	35.4	39.1
-14	16	1	47.9	44.5	11	1	2	14.6	16.3	14	7	2	39.6	39.2	8	13	2	52.2	51.2
-13	16	1	55.3	59.7	12	1	2	103.8	94.0	-7	8	2	66.7	67.4	-13	14	2	73.1	71.2
-12	16	1	190.0	194.0	13	1	2	32.5	30.2	-6	8	2	94.6	95.0	-12	14	2	32.2	36.2
-11	16	1	52.9	53.6	14	1	2	8.2	11.4	-5	8	2	27.7	30.6	-11	14	2	42.8	46.3
-10	16	1	22.3	26.6	15	1	2	46.1	42.8	-4	8	2	121.4	123.8	-10	14	2	71.1	75.8
-9	16	1	7.1	7.7	16	1	2	41.2	34.0	-3	8	2	60.7	63.0	-9	14	2	40.0	42.1
-8	16	1	103.2	107.8	17	1	2	22.2	24.5	-2	8	2	5.3	4.7	-8	14	2	47.3	50.6
-7	16	1	51.8	54.4	18	1	2	26.8	21.1	-1	8	2	53.4	53.5	-7	14	2	50.5	54.5
-6	16	1	58.2	59.9	-1	1	2	5.3	10.3	0	8	2	378.8	382.1	-6	14	2	9.4	15.7
-5	16	1	33.0	30.7	0	2	2	98.0	104.1	1	8	2	123.7	128.9	-5	14	2	55.2	57.7

-4	16	1	69.8	70.7	1	2	2	2	52.3	89.7	2	8	2	153.3	155.2	-4	14	2	114.4	111.6
-3	16	1	32.4	33.0	2	3	2	2	85.9	85.3	3	8	2	73.9	76.7	-3	14	2	38.2	38.6
-2	16	1	22.9	21.0	3	3	2	2	149.9	146.9	4	8	2	136.6	136.3	-2	14	2	31.7	29.7
-1	16	1	79.5	76.4	4	4	2	2	17.0	22.0	5	8	2	9.5	10.4	-1	14	2	28.5	28.9
0	16	1	166.2	161.2	5	5	2	2	49.5	51.7	6	8	2	8.3	2.5	0	14	2	25.0	26.4
1	16	1	29.5	24.8	6	6	2	2	86.3	86.2	7	8	2	73.9	73.7	1	14	2	8.6	2.6
2	16	1	75.2	73.8	7	7	2	2	46.0	45.9	8	8	2	88.2	90.1	2	14	2	87.0	85.9
3	16	1	34.6	32.6	8	8	2	2	47.2	48.1	9	8	2	7.8	18.6	3	14	2	7.8	6.9
4	16	1	18.3	18.3	9	9	2	2	16.8	10.4	10	8	2	62.7	62.9	4	14	2	14.0	12.8
-16	17	1	47.3	46.8	10	10	2	2	32.3	31.4	11	8	2	8.3	1.7	5	14	2	10.5	5.3
-15	17	1	52.8	55.0	11	11	2	2	46.2	42.8	12	8	2	96.4	93.7	6	14	2	29.4	34.4
-14	17	1	28.6	23.3	12	12	2	2	41.7	39.9	13	8	2	33.6	23.6	7	14	2	15.5	2.9
-13	17	1	63.5	67.7	13	13	2	2	27.7	28.4	14	8	2	79.9	79.3	8	14	2	53.6	56.9
-12	17	1	13.5	21.6	14	14	2	2	10.2	1.1	15	8	2	7.4	10.2	9	14	2	28.3	29.8
-11	17	1	26.3	18.4	15	15	2	2	20.4	10.7	16	8	2	34.7	36.1	10	14	2	53.1	54.6
-10	17	1	63.5	57.9	16	16	2	2	27.1	25.4	17	8	2	11.7	16.5	11	14	2	10.9	7.1
-9	17	1	60.6	60.9	17	17	2	2	35.9	30.5	18	8	2	8.0	3.2	12	14	2	49.5	52.3
-8	17	1	9.6	12.7	18	18	2	2	121.7	120.3	19	8	2	59.7	56.6	13	14	2	7.5	10.3
-7	17	1	14.6	12.2	19	19	2	2	15.8	16.1	20	8	2	26.2	21.1	14	14	2	63.0	67.2
-6	17	1	15.7	12.9	20	20	2	2	65.3	68.0	21	8	2	9.5	5.7	15	14	2	7.6	2.8
-5	17	1	71.2	69.2	21	21	2	2	105.1	103.2	22	8	2	108.3	109.5	16	14	2	31.7	28.9
-4	17	1	29.7	30.3	22	22	2	2	142.3	138.8	23	8	2	93.3	97.4	17	14	2	9.5	9.6
-3	17	1	31.6	28.8	23	23	2	2	43.9	45.2	24	8	2	11.1	7.7	18	14	2	43.2	49.7
-2	17	1	43.9	48.7	24	24	2	2	54.1	53.9	25	8	2	49.4	49.1	19	14	2	9.3	5.4
-1	17	1	48.6	46.5	25	25	2	2	159.3	158.8	26	8	2	85.1	87.3	20	14	2	41.4	41.2
0	17	1	49.9	49.2	26	26	2	2	9.7	8.0	27	8	2	29.7	31.8	21	14	2	91.3	86.3
1	17	1	8.2	6.2	27	27	2	2	66.5	64.3	28	8	2	31.8	27.8	22	14	2	9.0	7.2
2	17	1	16.1	12.8	28	28	2	2	75.2	75.8	29	8	2	35.8	37.6	23	14	2	16.5	24.2
-17	18	1	73.1	69.3	29	29	2	2	102.6	100.1	30	8	2	35.0	34.8	24	14	2	33.7	37.5
-16	18	1	13.8	2.8	30	30	2	2	87.8	82.6	31	8	2	14.0	8.9	25	14	2	8.0	7.0
-15	18	1	7.9	6.8	31	31	2	2	51.4	52.0	32	8	2	42.3	35.1	26	14	2	23.1	27.8
-14	18	1	68.1	66.8	32	32	2	2	7.8	2.9	33	8	2	65.0	63.9	27	14	2	10.0	11.4
-13	18	1	26.5	22.8	33	33	2	2	14.6	10.1	34	8	2	37.7	43.9	28	14	2	31.5	35.6
-12	18	1	64.3	67.2	34	34	2	2	40.1	37.6	35	8	2	104.1	106.3	29	14	2	20.0	17.5
-11	18	1	56.2	58.8	35	35	2	2	25.1	21.9	36	8	2	9.7	15.1	30	14	2	39.4	33.9
-10	18	1	20.5	23.3	36	36	2	2	26.9	20.5	37	8	2	20.0	21.7	31	14	2	91.9	92.6
-9	18	1	7.6	2.4	37	37	2	2	151.5	156.3	38	8	2	197.9	204.9	32	14	2	28.3	30.5
-8	18	1	48.7	50.8	38	38	2	2	93.2	92.5	39	8	2	9.1	11.4	33	14	2	30.4	31.7
-7	18	1	36.1	39.5	39	39	2	2	19.0	15.9	40	8	2	33.1	34.4	34	14	2	33.8	32.7
-6	18	1	27.9	29.9	40	40	2	2	141.0	146.8	41	8	2	78.0	75.8	35	14	2	61.1	65.1
-5	18	1	9.5	16.2	41	41	2	2	39.4	34.1	42	8	2	42.6	42.6	36	14	2	13.0	12.8
-4	18	1	28.3	25.6	42	42	2	2	57.5	55.2	43	8	2	37.7	38.0	37	14	2	34.0	35.0
-3	18	1	38.3	36.9	43	43	2	2	31.0	29.4	44	8	2	37.7	38.0	38	14	2	92.0	92.7
-2	18	1	63.2	60.9	44	44	2	2	138.5	137.0	45	8	2	42.8	45.1	39	14	2	171.2	170.3
-1	18	1	20.8	23.7	45	45	2	2	13.6	17.5	46	8	2	16.8	20.4	40	14	2	69.6	64.1
0	18	1	29.6	18.0	46	46	2	2	165.5	162.5	47	8	2	36.7	38.9	41	14	2	62.0	61.8
1	18	1	10.5	8.6	47	47	2	2	32.0	33.6	48	8	2	140.3	140.7	42	14	2	9.3	8.5
-18	19	1	42.1	42.4	48	48	2	2	261.3	256.0	49	8	2	11.1	11.7	43	14	2	18.1	20.9
-17	19	1	12.0	17.5	49	49	2	2	9.2	15.9	50	8	2	19.9	19.7	44	14	2	37.6	31.0
-16	19	1	16.5	25.1	50	50	2	2	101.1	99.2	51	8	2	57.8	58.5	45	14	2	14.5	13.3
-15	19	1	15.4	8.0	51	51	2	2	65.3	64.0	52	8	2	33.5	37.3	46	14	2	20.1	22.5

-14	19	1	8.8	19.0	12	4	2	106.2	99.9	9	10	2	33.7	30.0	4	16	2	15.7	26.8
-13	19	1	14.6	13.3	13	4	2	23.1	16.2	10	10	2	11.1	3.6	-16	17	2	11.0	12.5
-12	19	1	31.1	38.2	14	4	2	9.5	7.2	11	10	2	8.6	2.8	-15	17	2	15.2	23.2
-11	19	1	21.5	27.3	15	4	2	12.3	14.3	-10	11	2	56.7	55.1	-14	17	2	46.3	49.4
-10	19	1	40.3	38.7	16	4	2	16.5	15.9	-9	11	2	50.9	49.2	-13	17	2	7.7	5.5
-9	19	1	19.6	7.8	-4	5	2	42.6	44.8	-8	11	2	62.9	65.5	-12	17	2	14.8	0.9
-8	19	1	13.0	19.3	-3	5	2	78.2	80.7	-7	11	2	33.3	33.8	-11	17	2	54.1	55.9
-7	19	1	8.8	0.5	-2	5	2	69.0	66.2	-6	11	2	30.6	30.5	-10	17	2	11.3	8.4
-6	19	1	8.6	4.6	-1	5	2	89.6	85.7	-5	11	2	28.6	29.1	-9	17	2	52.8	53.7
-5	19	1	60.7	59.6	0	5	2	28.8	32.3	-4	11	2	42.1	45.1	-8	17	2	27.6	28.1
-4	19	1	15.0	15.3	1	5	2	46.1	44.9	-3	11	2	29.5	28.7	-7	17	2	24.4	28.1
-3	19	1	8.5	13.1	2	5	2	116.9	117.0	-2	11	2	34.5	38.9	-6	17	2	45.2	45.1
-2	15	1	27.1	26.0	3	5	2	78.7	76.2	-1	11	2	15.6	20.4	-5	17	2	9.6	13.4
-1	19	1	18.1	20.4	4	5	2	26.3	23.9	0	11	2	51.1	55.4	-4	17	2	46.2	49.4
-16	20	1	33.3	35.9	5	5	2	49.2	47.2	1	11	2	51.1	55.4	-3	17	2	53.8	54.9
-15	20	1	11.0	7.4	6	5	2	25.1	29.9	2	11	2	56.2	2.6	-2	17	2	29.1	35.6
-14	20	1	27.6	29.7	7	5	2	50.5	50.8	3	11	2	9.9	2.6	-1	17	2	68.8	65.8
-13	20	1	50.9	51.3	8	5	2	32.4	30.8	4	11	2	18.0	21.4	0	17	2	54.5	52.7
-12	20	1	20.4	23.2	5	5	2	47.4	50.4	5	11	2	34.8	37.3	1	17	2	44.6	46.1
-11	20	1	39.6	36.1	10	5	2	29.5	24.4	6	11	2	12.4	8.9	2	17	2	16.7	8.3
-10	20	1	8.2	15.5	11	5	2	27.9	24.7	7	11	2	79.0	79.0	-17	18	2	9.7	25.7
-9	20	1	85.1	86.0	12	5	2	95.5	96.5	8	11	2	25.9	28.9	-16	18	2	45.5	46.4
-8	20	1	114.8	115.1	13	5	2	17.4	22.8	9	11	2	8.4	5.3	-15	18	2	46.0	45.4
-7	20	1	28.9	33.0	14	5	2	47.1	40.6	10	11	2	8.7	4.9	-14	18	2	15.4	5.9
-6	20	1	20.5	24.8	15	5	2	25.0	23.2	-11	12	2	21.6	21.8	-13	18	2	7.8	1.2
-5	20	1	15.5	5.0	-5	6	2	69.0	70.7	-10	12	2	29.2	31.3	-12	18	2	9.1	1.7
-4	20	1	26.2	23.7	-4	6	2	35.7	38.7	-9	12	2	64.8	69.3	-11	18	2	11.7	5.2
-14	21	1	22.8	27.7	-3	6	2	26.8	24.1	-8	12	2	161.0	170.1	-9	18	2	70.3	72.1
-13	21	1	38.5	35.0	-2	6	2	26.0	24.8	-7	12	2	55.3	53.5	-8	18	2	62.3	63.8
-12	21	1	32.4	36.0	-1	6	2	73.2	71.6	-6	12	2	7.2	9.7	-7	18	2	49.5	49.7
-11	21	1	13.5	4.9	0	6	2	163.0	165.7	-5	12	2	146.8	144.7	-6	18	2	10.1	1.6
-10	21	1	23.2	26.3	1	6	2	28.7	34.8	-4	12	2	146.8	144.7	-6	18	2	92.7	94.0



ARMANGITE

SHEET NO. 2 PART 1

H	K	L	FC	FC	F	K	L	FD	FC	H	K	L	FD	FC	H	K	L	FD	FC
-5	18	2	23.4	21.7	2	4	3	111.5	105.4	2	10	3	6.6	2.2	-1	16	3	18.4	23.2
-4	18	2	8.3	18.2	3	4	3	17.0	17.6	3	10	3	36.2	35.1	0	16	3	40.5	41.4
-3	18	2	15.0	15.7	4	4	485.3	470.6	470.6	4	10	3	29.5	31.9	1	16	3	42.0	44.4
-2	18	2	10.5	6.8	5	4	58.0	58.6	58.6	5	10	3	58.8	59.8	2	16	3	32.4	32.3
-1	18	2	29.8	22.3	6	4	101.8	99.2	99.2	6	10	3	41.3	41.5	3	16	3	32.0	28.3
0	18	2	55.3	55.9	7	4	49.2	52.3	52.3	7	10	3	13.6	18.0	-16	17	3	22.8	17.7
1	18	2	34.6	32.2	8	4	143.2	138.6	138.6	8	10	3	9.8	0.5	-15	17	3	59.7	57.1
-18	19	2	14.5	5.1	9	4	15.4	21.6	21.6	9	10	3	9.3	8.6	-14	17	3	9.3	8.5
-17	19	2	17.0	12.0	10	4	30.4	32.0	32.0	10	10	3	65.7	66.4	-13	17	3	22.7	14.0
-16	19	2	16.3	16.7	11	4	47.2	49.5	49.5	11	10	3	12.8	17.6	-12	17	3	45.4	42.7
-15	19	2	22.9	17.8	12	4	71.3	68.5	68.5	-10	11	3	69.8	72.1	-11	17	3	24.6	28.2
-14	19	2	11.2	18.5	13	4	16.3	8.9	8.9	-9	11	3	19.7	19.7	-10	17	3	32.0	40.0
-13	19	2	20.9	11.7	14	4	86.2	80.7	80.7	-8	11	3	37.0	40.3	-9	17	3	15.1	19.6
-12	19	2	13.6	12.7	15	4	22.2	15.5	15.5	-7	11	3	55.0	54.8	-8	17	3	51.4	55.7
-11	19	2	10.5	13.4	-4	5	108.9	111.6	111.6	-6	11	3	78.5	82.3	-7	17	3	28.0	32.1
-10	19	2	7.9	4.2	-3	5	27.4	30.8	30.8	-5	11	3	16.5	18.0	-6	17	3	57.9	59.9
-9	19	2	58.1	56.2	-2	5	130.0	128.0	128.0	-4	11	3	10.4	4.5	-5	17	3	77.3	77.6
-8	19	2	28.8	31.6	-1	5	8.3	9.5	9.5	-3	11	3	6.6	3.3	-4	17	3	60.9	57.7
-7	19	2	25.3	32.4	0	5	11.4	12.5	12.5	-2	11	3	16.8	14.2	-3	17	3	23.2	23.2
-6	19	2	8.0	5.1	1	5	44.2	45.2	45.2	-1	11	3	10.9	15.6	-2	17	3	17.9	12.2
-5	19	2	13.0	15.5	2	5	74.1	74.3	74.3	0	11	3	70.9	72.4	-1	17	3	30.2	29.9
-4	19	2	11.1	3.6	3	5	76.5	76.3	76.3	1	11	3	22.1	29.5	0	17	3	8.3	1.0
-3	19	2	12.1	1.0	4	5	46.0	86.1	86.1	2	11	3	40.0	44.0	1	17	3	13.0	1.5
-2	19	2	13.0	11.2	5	5	50.3	88.3	88.3	3	11	3	105.2	107.2	2	17	3	22.8	16.9
-1	19	2	8.9	2.7	6	5	6.5	2.3	2.3	4	11	3	36.0	30.6	-17	18	3	10.9	6.8
-16	20	2	13.1	14.9	7	5	35.2	32.4	32.4	5	11	3	28.0	34.0	-16	18	3	12.1	10.3
-15	20	2	16.3	23.5	8	5	130.2	127.0	127.0	6	11	3	11.2	15.9	-15	18	3	22.4	29.0
-14	20	2	8.3	6.1	9	5	26.9	33.0	33.0	7	11	3	33.2	35.0	-14	18	3	91.0	92.1
-13	20	2	71.1	70.7	10	5	37.9	35.0	35.0	8	11	3	21.2	23.5	-13	18	3	81.2	82.9
-12	20	2	112.0	116.8	11	5	18.4	24.9	24.9	9	11	3	13.3	6.0	-12	18	3	46.8	47.4
-11	20	2	38.9	44.6	12	5	70.9	65.7	65.7	10	11	3	10.6	16.4	-11	18	3	22.3	28.7
-10	20	2	13.4	5.8	13	5	8.4	0.6	0.6	-11	12	3	126.9	128.5	-10	18	3	82.1	86.2
-9	20	2	17.7	12.4	14	5	35.0	35.0	35.0	-10	12	3	48.6	49.8	-9	18	3	9.1	2.0
-8	20	2	61.5	62.3	15	5	58.4	52.8	52.8	-9	12	3	36.8	35.7	-8	18	3	11.1	14.1
-7	20	2	32.4	29.0	-5	6	99.7	102.9	102.9	-8	12	3	134.4	139.3	-7	18	3	7.7	0.6
-6	20	2	66.4	66.1	-4	6	59.0	60.1	60.1	-7	12	3	106.0	110.6	-6	18	3	15.9	4.6
-5	20	2	15.8	21.0	-3	6	43.5	48.9	48.9	-6	12	3	8.0	4.9	-5	18	3	27.7	28.9
-4	20	2	41.6	36.5	-2	6	135.8	132.1	132.1	-5	12	3	6.5	2.1	-4	18	3	50.9	48.4
-14	21	2	8.4	5.6	-1	6	12.2	5.7	5.7	-4	12	3	112.1	110.4	-3	18	3	48.1	44.6
-13	21	2	45.3	48.1	0	6	47.9	47.4	47.4	-3	12	3	38.9	34.4	-2	18	3	10.7	3.7
-12	21	2	23.8	22.1	1	6	117.1	122.5	122.5	-2	12	3	35.5	30.7	-1	18	3	8.8	3.1
-11	21	2	24.7	23.1	2	6	134.2	132.8	132.8	-1	12	3	52.2	52.1	0	18	3	41.1	41.7
-10	21	2	35.6	29.2	3	6	12.4	12.5	12.5	0	12	3	206.6	208.4	-17	19	3	8.6	2.6



-9	21	2	36.4	35.5	4	6	3	78.4	79.0	1	12	3	68.9	70.9	-16	19	3	30.0	25.2
-8	21	2	41.0	42.8	5	6	3	49.5	48.0	2	12	3	109.6	113.8	-15	19	3	18.7	17.6
-7	21	2	12.5	18.8	6	6	3	19.3	18.5	3	12	3	43.9	50.7	-14	19	3	39.8	40.1
0	0	3	741.8	940.5	7	6	3	25.9	25.5	4	12	3	48.7	48.2	-13	19	3	37.5	38.0
1	0	3	45.5	55.3	8	6	3	51.3	49.8	5	12	3	22.1	25.7	-12	19	3	28.3	32.3
2	0	3	129.8	138.2	9	6	3	40.4	43.0	6	12	3	7.9	1.9	-11	19	3	14.0	14.0
3	0	3	16.7	16.9	10	6	3	17.1	3.3	7	12	3	47.6	46.9	-10	19	3	32.0	31.0
4	0	3	165.1	170.6	11	6	3	54.5	54.0	8	12	3	48.1	45.9	-9	19	3	15.6	1.4
5	0	3	6.4	6.3	12	6	3	61.5	57.3	9	12	3	16.8	18.5	-8	19	3	12.3	18.4
6	0	3	11.0	14.8	13	6	3	14.1	9.2	-12	13	3	19.4	16.3	-7	19	3	11.0	5.4
7	0	3	5.6	4.7	14	6	3	11.0	7.4	-11	13	3	11.1	9.0	-6	19	3	23.6	27.2
8	0	3	138.3	141.9	-6	7	3	68.2	72.5	-10	13	3	83.1	86.9	-5	19	3	8.2	11.4
9	0	3	10.7	6.2	-5	7	3	109.4	111.5	-9	13	3	25.4	27.9	-4	19	3	12.9	9.5
10	0	3	229.5	227.6	-4	7	3	31.0	33.7	-8	13	3	57.0	57.8	-3	19	3	22.0	23.6
11	0	3	10.1	5.2	-3	7	3	47.7	42.9	-7	13	3	43.3	46.4	-2	19	3	24.9	25.5
12	0	3	223.1	219.0	-2	7	3	5.7	4.6	-6	13	3	42.4	45.3	-15	20	3	29.3	34.9
13	0	3	30.4	28.9	-1	7	3	49.5	52.6	-5	13	3	89.5	88.8	-14	20	3	26.8	24.2
14	0	3	75.6	72.0	0	7	3	72.6	74.1	-4	13	3	8.5	1.0	-13	20	3	21.8	13.3
15	0	3	18.4	7.9	1	7	3	49.0	49.7	-3	13	3	32.8	32.3	-12	20	3	52.6	56.2
16	0	3	40.5	39.7	2	7	3	51.5	51.8	-2	13	3	17.3	20.9	-11	20	3	28.3	25.7
17	0	3	14.9	6.9	3	7	3	64.5	66.5	-1	13	3	13.3	2.9	-10	20	3	63.8	64.3
18	0	3	13.2	5.5	4	7	3	66.5	64.1	0	13	3	96.8	95.6	-9	20	3	16.2	18.0
0	1	3	24.7	22.1	5	7	3	106.5	107.9	1	13	3	22.8	24.7	-8	20	3	47.1	47.2
1	1	3	21.2	17.9	6	7	3	30.6	25.4	2	13	3	29.7	29.9	-7	20	3	21.4	26.0
2	1	3	39.0	38.9	7	7	3	50.7	52.0	3	13	3	73.7	75.9	-6	20	3	44.3	40.0
3	1	3	60.4	61.9	8	7	3	78.5	79.0	4	13	3	62.9	63.2	-5	20	3	68.5	70.3
4	1	3	52.3	55.0	9	7	3	23.6	20.0	5	13	3	51.9	51.4	-12	21	3	32.7	27.8
5	1	3	32.5	27.4	10	7	3	28.3	32.1	6	13	3	20.7	25.6	-11	21	3	28.8	28.6
6	1	3	47.2	47.7	11	7	3	52.7	47.7	7	13	3	17.7	20.4	-10	21	3	21.5	18.3
7	1	3	25.8	23.6	12	7	3	12.9	6.0	-13	14	3	39.4	41.1	-9	21	3	26.0	24.8
8	1	3	44.1	44.0	13	7	3	9.6	11.5	-12	14	3	50.5	48.1	0	21	3	30.4	29.8
9	1	3	6.9	4.6	17	7	3	34.7	35.2	-11	14	3	42.3	40.8	1	0	4	48.5	49.3
10	1	3	39.8	36.8	-6	8	3	28.3	25.2	-10	14	3	54.4	55.5	2	0	4	61.5	64.8
11	1	3	26.3	28.8	-5	8	3	87.6	91.4	-9	14	3	19.4	25.2	3	0	4	23.2	22.5
12	1	3	43.2	44.3	-4	8	3	477.5	477.8	-8	14	3	19.1	11.7	4	0	4	6.5	7.3
13	1	3	73.8	71.4	-3	8	3	248.8	246.3	-7	14	3	9.0	16.3	5	0	4	16.8	14.6
14	1	3	8.3	13.1	-2	8	3	157.5	153.0	-6	14	3	108.3	112.2	6	0	4	215.5	219.3
15	1	3	23.7	23.7	-1	8	3	11.4	5.2	-5	14	3	12.6	16.6	7	0	4	35.1	35.9
16	1	3	58.9	51.5	0	8	3	159.7	162.2	-4	14	3	42.8	41.6	8	0	4	373.6	375.1
17	1	3	54.4	51.9	1	8	3	107.4	112.4	-3	14	3	34.8	34.7	9	0	4	8.2	8.1
-1	2	3	7.6	6.0	2	8	3	25.3	23.0	-2	14	3	123.1	117.7	10	0	4	102.2	101.3
0	2	3	59.6	58.9	3	8	3	65.3	69.3	-1	14	3	32.5	30.2	11	0	4	27.7	28.7
1	2	3	46.9	46.8	4	8	3	123.3	124.9	0	14	3	34.6	34.3	12	0	4	112.9	106.6
2	2	3	58.1	55.3	5	8	3	28.1	29.5	1	14	3	15.0	6.9	13	0	4	22.9	25.5
3	2	3	28.3	26.9	6	8	3	95.1	96.0	2	14	3	10.9	12.0	14	0	4	45.4	42.7
4	2	3	45.6	47.4	7	8	3	41.8	43.6	3	14	3	24.7	20.6	15	0	4	8.8	6.4
5	2	3	113.1	114.4	8	8	3	147.0	151.4	4	14	3	62.3	59.4	16	0	4	11.6	5.5
6	2	3	34.3	34.4	9	8	3	8.7	12.6	5	14	3	8.1	6.6	17	0	4	18.4	19.2
7	2	3	41.4	39.4	10	8	3	99.5	98.4	6	14	3	12.2	8.7	0	1	4	49.5	50.5
8	2	3	70.1	71.0	11	8	3	56.1	54.7	-14	15	3	34.4	37.8	1	1	4	5.7	2.8
9	2	3	8.2	7.1	12	8	3	40.8	41.7	-13	15	3	27.0	24.2	2	1	4	102.0	105.4

10	2	3	40.1	36.9	-8	9	3	107.0	111.4	-12	15	3	25.3	30.1	3	4	4	93.0	93.2
11	2	3	16.2	8.1	-7	9	3	22.7	23.1	-11	15	3	13.9	8.8	3	4	4	9.0	3.7
12	2	3	19.1	17.7	-6	9	3	32.9	32.4	-10	15	3	39.2	38.6	5	5	4	65.1	67.9
13	2	3	48.7	43.6	-5	9	3	5.9	9.4	-9	15	3	21.3	10.3	6	6	4	42.7	43.7
14	2	3	23.2	24.7	-4	9	3	88.4	88.7	-8	15	3	67.2	69.7	7	7	4	17.9	19.4
15	2	3	38.7	38.0	-3	9	3	92.7	92.6	-7	15	3	15.1	11.3	8	8	4	34.6	35.6
16	2	3	21.9	16.6	-2	9	3	10.4	4.7	-6	15	3	29.1	36.4	9	9	4	101.4	98.6
17	2	3	9.9	11.8	-1	9	3	74.5	75.8	-5	15	3	61.6	62.2	10	10	4	21.4	20.0
-2	3	3	73.3	74.8	0	9	3	58.1	59.4	-4	15	3	19.3	11.6	11	11	4	25.4	21.0
-1	3	3	83.5	82.4	1	9	3	6.2	1.2	-3	15	3	7.8	6.2	12	12	4	97.0	90.2
0	3	3	36.9	39.3	2	9	3	66.6	59.9	-2	15	3	20.3	27.8	13	13	4	74.3	67.2
1	3	3	79.2	78.6	3	9	3	19.5	19.3	-1	15	3	20.6	19.5	14	14	4	44.7	37.5
2	3	3	42.8	41.8	4	9	3	17.2	16.4	0	15	3	48.6	42.8	15	15	4	21.6	20.2
3	3	3	68.3	66.1	5	9	3	14.4	8.8	1	15	3	7.9	7.4	16	16	4	52.9	44.8
4	3	3	165.8	159.8	6	9	3	39.1	38.1	2	15	3	27.8	27.7	17	17	4	19.7	7.5
5	3	3	104.1	102.2	7	9	3	66.6	66.2	3	15	3	8.0	3.6	-1	0	4	65.1	62.8
6	3	3	57.4	88.3	8	9	3	39.7	46.7	4	15	3	19.7	23.5	0	1	4	205.3	208.0
7	3	3	121.5	120.2	9	9	3	8.0	3.5	5	15	3	28.4	17.5	1	1	4	123.5	119.9
8	3	3	27.6	25.5	10	9	3	17.7	7.4	-15	16	3	7.8	2.9	2	2	4	63.1	58.6
9	3	3	111.0	105.7	11	9	3	46.9	42.9	-14	16	3	12.3	15.1	3	3	4	51.5	50.2
10	2	2	66.4	65.7	12	9	3	59.0	55.2	-13	16	3	46.6	45.2	4	4	4	85.9	87.6
11	3	3	7.5	13.7	-5	10	3	14.9	6.7	-12	16	3	40.6	39.6	5	5	4	92.9	94.2
12	3	3	36.0	37.1	-8	10	3	62.1	65.0	-11	16	3	7.3	5.7	6	6	4	142.3	140.9
13	3	3	63.9	61.6	-7	10	3	59.7	61.6	-10	16	3	7.3	12.8	7	7	4	75.5	75.6
14	3	3	42.1	37.2	-6	10	3	68.0	70.3	-9	16	3	105.6	111.6	8	8	4	25.7	23.9
15	3	3	94.6	89.0	-5	10	3	65.2	65.2	-8	16	3	143.3	151.1	9	9	4	13.4	13.4
16	3	3	44.1	37.6	-4	10	3	44.3	42.7	-7	16	3	92.3	97.0	10	10	4	7.3	8.4
-3	4	2	28.5	27.0	-3	10	3	43.0	42.1	-6	16	3	28.8	30.8	11	11	4	36.7	36.8
-2	4	2	138.1	124.2	-2	10	3	6.8	6.3	-5	16	3	30.7	32.9	12	12	4	34.1	31.7
-1	4	2	56.8	54.4	-1	10	3	50.8	48.3	-4	16	3	82.1	78.4	13	13	4	12.3	6.5
0	4	2	106.9	111.1	0	10	3	121.9	121.0	-3	16	3	64.1	61.5	14	14	4	20.1	6.6
1	4	2	14.2	17.5	1	10	3	37.3	40.0	-2	16	3	43.2	43.3	15	15	4	35.9	36.5



ARMANDSITE

SHEET NO. 2 PART 2

	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
16	2	4	32.6	24.3	0	9	4	17.5	19.4	0	15	4	25.1	28.2	8	2	5	34.7	31.5	
-2	3	4	36.1	36.7	1	9	4	13.2	11.6	1	15	4	23.6	28.7	9	2	5	24.2	23.7	
-1	3	4	153.1	150.9	2	9	4	47.2	49.7	2	15	4	34.1	35.5	10	2	5	16.4	22.3	
0	3	4	93.7	95.2	3	9	4	27.7	32.9	3	15	4	64.6	66.2	11	2	5	48.3	47.0	
1	3	4	73.9	70.5	4	9	4	46.2	47.8	4	15	4	8.3	8.0	12	2	5	44.5	40.8	
2	3	4	33.5	21.9	5	9	4	12.8	7.5	-15	16	4	43.5	42.2	13	2	5	28.6	30.0	
3	3	4	132.9	131.8	6	9	4	7.4	10.6	-14	16	4	14.4	3.1	14	2	5	13.6	12.4	
4	3	4	18.6	15.1	7	9	4	32.7	39.1	-13	16	4	72.7	73.5	15	2	5	12.9	2.1	
5	3	4	153.7	150.6	8	9	4	91.0	88.7	-12	16	4	133.8	136.7	16	2	5	14.1	2.4	
6	3	4	97.2	97.4	9	9	4	26.3	29.4	-11	16	4	84.4	91.3	16	2	5	117.6	118.2	
7	3	4	68.9	68.2	10	9	4	43.9	40.3	-10	16	4	45.6	47.8	-1	3	5	58.7	57.7	
8	3	4	61.7	60.0	11	9	4	24.0	30.7	-9	16	4	11.3	18.6	0	3	5	62.1	63.4	
9	3	4	104.7	102.4	-5	10	4	67.6	66.7	-8	16	4	81.2	83.1	1	3	5	100.6	98.5	
10	3	4	37.1	33.9	-8	10	4	8.1	9.5	-7	16	4	50.5	52.6	2	3	5	175.6	171.1	
11	3	4	56.6	91.2	-7	10	4	25.2	29.1	-6	16	4	50.6	52.0	3	3	5	10.7	13.2	
12	3	4	68.0	65.1	-6	10	4	53.4	55.3	-5	16	4	11.2	3.4	4	3	5	101.4	99.2	
13	3	4	17.3	16.3	-5	10	4	53.1	55.9	-4	16	4	51.3	50.8	5	3	5	114.9	112.8	
14	3	4	34.8	33.4	-4	10	4	28.2	30.2	-3	16	4	35.0	32.6	6	3	5	17.0	19.1	
15	3	4	9.9	14.3	-3	10	4	54.0	56.2	-2	16	4	39.6	38.3	7	3	5	74.0	73.3	
16	3	4	11.5	12.2	-2	10	4	98.8	95.8	-1	16	4	71.1	67.0	8	3	5	116.6	112.9	
-3	4	4	13.0	17.1	-1	10	4	15.7	13.6	0	16	4	133.8	131.1	9	3	5	56.3	56.6	
-2	4	4	53.0	47.2	0	10	4	6.4	1.4	1	16	4	45.8	47.6	10	3	5	63.5	61.9	
-1	4	4	66.3	66.9	1	10	4	73.8	75.3	2	16	4	71.6	74.6	11	3	5	63.6	65.9	
0	4	4	703.2	709.7	2	10	4	126.4	127.3	3	16	4	28.1	28.4	12	3	5	24.0	25.9	
1	4	4	176.0	176.7	3	10	4	33.1	29.3	-15	17	4	62.5	62.2	13	3	5	41.3	36.7	
2	4	4	272.7	264.0	4	10	4	59.1	63.5	-14	17	4	49.5	51.4	14	3	5	25.0	26.2	
3	4	4	8.4	13.0	5	10	4	22.2	22.8	-13	17	4	37.7	38.1	15	3	5	25.6	21.1	
4	4	4	151.8	146.1	6	10	4	21.7	26.4	-12	17	4	31.8	36.7	-3	4	5	200.5	202.8	
5	4	4	90.0	89.3	7	10	4	21.1	22.7	-11	17	4	11.6	10.2	-2	4	5	245.2	238.9	
6	4	4	43.4	39.5	8	10	4	18.8	25.4	-10	17	4	53.0	56.3	-1	4	5	11.9	11.8	
7	4	4	46.5	46.5	9	10	4	24.8	24.8	-9	17	4	47.8	49.1	0	4	5	31.3	32.1	
8	4	4	83.0	81.4	10	10	4	15.2	10.6	-8	17	4	50.0	49.1	1	4	5	10.0	9.4	
9	4	4	10.6	5.4	10	10	4	96.0	96.4	-7	17	4	19.9	17.3	2	4	5	34.1	34.3	
10	4	4	168.4	162.2	-9	11	4	12.9	1.4	-6	17	4	43.7	43.8	3	4	5	10.0	0.8	
11	4	4	7.9	7.8	-8	11	4	11.0	2.0	-5	17	4	55.7	52.5	4	4	5	6.4	0.9	
12	4	4	128.3	124.2	-7	11	4	39.4	43.8	-4	17	4	10.0	6.2	5	4	5	9.1	7.5	
13	4	4	8.5	9.0	-6	11	4	53.2	56.0	-3	17	4	18.2	19.8	6	4	5	146.8	143.4	
14	4	4	102.3	93.6	-5	11	4	74.1	82.2	-2	17	4	59.5	58.2	7	4	5	14.7	18.2	
15	4	4	16.5	17.2	-4	11	4	85.9	87.4	-1	17	4	19.8	16.5	8	4	5	160.3	160.2	
-4	4	4	70.4	72.9	-3	11	4	14.9	20.7	0	17	4	50.6	51.0	9	4	5	46.1	45.8	
-3	5	4	16.5	16.2	-2	11	4	36.0	38.0	1	17	4	10.0	10.3	10	4	5	127.7	123.6	
-2	5	4	26.4	28.6	-1	11	4	114.8	113.0	1	17	4	76.1	71.3	11	4	5	35.1	36.7	
-1	5	4	17.7	13.8	0	11	4	30.7	26.9	-17	18	4	76.1	71.3	12	4	5	79.6	77.0	

0	5	4	36.9	26.3	1	11	4	38.8	38.9	-16	18	4	8.3	15.2	13	4	8.7	9.3
1	5	4	94.6	58.5	2	11	4	19.1	20.6	-15	18	4	8.2	10.4	14	4	8.7	9.3
2	5	4	45.1	45.4	3	11	4	59.7	58.7	-14	18	4	85.1	83.6	15	5	13.0	14.1
3	5	4	9.5	16.0	4	11	4	54.1	54.6	-13	18	4	23.8	13.1	-4	5	44.8	2.6
4	5	4	91.7	51.6	5	11	4	14.8	16.0	-12	18	4	25.7	25.3	-3	5	105.9	50.0
5	5	4	26.9	24.3	6	11	4	52.2	53.9	-11	18	4	12.5	28.0	-2	5	50.2	47.5
6	5	4	28.0	30.4	7	11	4	36.3	31.9	-10	18	4	10.8	10.4	-1	5	74.1	71.0
7	5	4	52.6	59.3	8	11	4	51.5	53.1	-9	18	4	7.8	2.9	0	5	52.8	55.9
8	5	4	60.2	59.4	9	11	4	23.8	30.3	-8	18	4	20.7	21.8	1	5	27.8	22.1
9	5	4	13.4	12.4	-11	12	4	7.8	13.0	-7	18	4	13.2	9.4	2	5	120.5	121.9
10	5	4	70.8	65.4	-10	12	4	49.2	47.1	-6	18	4	41.1	45.0	3	5	89.7	87.3
11	5	4	47.7	50.1	-5	12	4	28.7	31.6	-5	18	4	8.5	14.2	4	5	14.4	7.3
12	5	4	18.8	20.3	-8	12	4	53.8	55.8	-4	18	4	37.1	38.4	5	5	19.3	17.3
13	5	4	10.3	22.0	-7	12	4	27.1	25.2	-3	18	4	29.3	29.9	6	5	40.0	37.8
14	5	4	28.4	26.9	-6	12	4	22.3	22.6	-2	18	4	79.5	71.5	7	5	7.1	9.6
15	6	4	24.3	25.6	-5	12	4	104.9	109.5	-1	18	4	10.4	11.6	8	5	7.3	2.0
16	6	4	68.7	71.4	-4	12	4	248.6	250.2	-16	19	4	13.6	8.3	9	5	51.8	48.2
17	6	4	74.9	75.6	-3	12	4	151.3	187.7	-15	19	4	8.4	7.4	10	5	19.1	21.5
18	6	4	215.0	211.4	-2	12	4	143.7	140.6	-14	19	4	33.7	31.0	11	5	11.2	5.0
19	6	4	9.8	10.1	-1	12	4	10.9	0.9	-13	19	4	10.5	6.1	12	5	106.2	101.4
20	6	4	102.3	103.1	0	12	4	99.5	99.0	-12	19	4	23.0	25.7	13	5	9.3	18.6
21	6	4	72.7	74.0	1	12	4	60.9	62.5	-11	19	4	10.3	11.4	14	5	18.2	24.8
22	6	4	43.0	43.0	2	12	4	15.8	11.9	-10	19	4	38.2	38.9	-5	5	41.0	42.8
23	6	4	11.4	7.3	3	12	4	40.4	45.1	-5	19	4	9.2	1.6	-4	5	65.2	65.3
24	6	4	48.8	49.9	4	12	4	47.0	47.7	-8	19	4	30.3	31.1	-3	5	9.2	8.0
25	6	4	69.1	66.5	5	12	4	49.6	50.3	-7	19	4	31.4	32.2	-2	5	9.5	2.0
26	6	4	8.7	11.9	6	12	4	51.4	53.0	-6	19	4	15.6	16.0	-1	5	69.3	68.9
27	6	4	30.7	32.4	7	12	4	19.6	12.5	-5	19	4	51.4	50.4	0	5	40.7	40.7
28	6	4	46.7	42.7	8	12	4	93.1	94.1	-4	19	4	13.2	6.3	1	5	91.2	94.4
29	6	4	31.6	28.4	-12	13	4	71.9	72.3	-3	19	4	17.3	18.2	2	5	63.5	61.0
30	6	4	10.3	10.9	-11	13	4	38.3	36.2	-14	20	4	8.4	10.4	3	5	9.0	1.7
31	6	4	28.9	27.0	-10	13	4	38.0	34.6	-13	20	4	29.7	22.6	4	5	28.4	26.1
32	6	4	13.4	1.6	-9	13	4	30.2	39.7	-12	20	4	9.2	19.2	5	5	54.3	53.1
33	6	4	22.3	16.1	-8	13	4	23.6	23.7	-11	20	4	24.2	28.8	6	5	95.5	95.1
34	6	4	54.8	47.9	-7	13	4	73.0	78.2	-10	20	4	29.4	33.7	7	5	12.4	14.6
35	6	4	54.9	55.4	-6	13	4	17.1	23.7	-9	20	4	69.0	70.4	8	5	46.8	44.5
36	6	4	10.0	4.0	-5	13	4	17.1	23.7	-8	20	4	50.6	54.2	9	5	10.3	13.2
37	6	4	27.1	26.4	-4	13	4	69.1	68.0	-7	20	4	18.9	23.7	10	5	39.1	38.2
38	6	4	25.3	26.4	-3	13	4	26.5	31.2	-6	20	4	18.9	23.7	11	5	21.6	32.4
39	6	4	117.6	116.4	-2	13	4	31.9	31.1	0	20	4	140.1	150.0	12	5	10.1	3.6
40	6	4	23.5	16.5	-1	13	4	108.9	104.6	1	0	4	89.1	94.4	13	5	20.2	9.1
41	6	4	87.2	85.3	0	13	4	56.0	56.8	2	0	4	91.6	94.6	-6	5	157.9	165.1
42	6	4	46.8	49.1	1	13	4	39.5	40.0	3	0	4	55.1	59.4	-5	5	53.3	52.7
43	6	4	7.6	2.1	2	13	4	22.9	18.5	4	0	4	489.6	497.0	-4	5	89.1	89.4
44	6	4	57.8	58.5	3	13	4	7.8	7.0	5	0	4	79.6	81.0	-3	5	31.0	33.3
45	6	4	96.0	94.9	4	13	4	14.1	8.8	6	0	4	200.5	206.1	-2	5	12.6	17.6
46	6	4	60.0	62.7	5	13	4	24.8	26.2	7	0	4	9.2	3.4	-1	5	128.8	128.0
47	6	4	8.4	15.0	6	13	4	62.0	60.4	8	0	4	115.4	114.9	0	5	100.2	103.8
48	6	4	102.1	107.0	7	13	4	54.3	53.7	9	0	4	7.9	10.0	1	5	32.7	35.4
49	6	4	27.2	25.7	-13	14	4	26.4	30.3	10	0	4	87.8	90.0	2	5	6.4	11.3
50	6	4	69.6	66.4	-12	14	4	27.6	29.0	11	0	4	34.2	32.2	3	5	149.3	151.0



10	7	4	23.2	26.0	-11	14	4	45.4	49.4	12	0	5	13.0	8.3	4	7	5	21.7	20.5
11	7	4	8.4	2.6	-10	14	4	172.5	179.6	13	0	5	8.8	3.8	5	7	5	112.4	115.4
12	7	4	25.9	24.0	-9	14	4	57.4	60.2	14	0	5	139.6	133.0	5	7	5	39.2	40.7
13	7	4	12.2	12.8	-8	14	4	49.3	51.7	15	0	5	62.8	60.0	6	7	5	21.3	28.2
-7	8	4	222.1	226.3	-7	14	4	37.2	34.3	16	0	5	87.8	86.0	8	7	5	63.1	64.0
-6	8	4	182.8	182.5	-6	14	4	110.9	114.7	17	0	5	12.1	1.9	9	7	5	60.4	57.9
-5	8	4	17.6	12.2	-5	14	4	26.9	24.9	0	1	5	16.9	14.3	10	7	5	65.1	60.0
-4	8	4	129.1	120.3	-4	14	4	35.7	39.0	1	1	5	110.6	108.9	11	7	5	61.9	58.9
-3	8	4	147.6	148.1	-3	14	4	13.1	4.1	2	1	5	26.8	27.4	12	7	5	43.1	45.7
-2	8	4	63.0	64.5	-2	14	4	27.0	28.5	3	1	5	54.4	53.4	-7	8	5	38.4	39.0
-1	8	4	6.2	1.3	-1	14	4	30.4	30.5	4	1	5	56.2	55.8	-6	8	5	97.1	95.9
0	8	4	61.7	62.2	0	14	4	81.1	77.0	5	1	5	87.8	89.5	-5	8	5	8.4	14.7
1	8	4	20.6	19.8	1	14	4	12.5	14.1	6	1	5	42.3	41.5	-4	8	5	20.9	23.5
2	8	4	86.1	87.7	2	14	4	11.5	5.9	7	1	5	6.3	5.3	-3	8	5	14.7	21.6
3	8	4	8.6	6.5	3	14	4	17.1	16.1	8	1	5	105.8	105.0	-2	8	5	15.6	15.0
4	8	4	246.4	247.1	4	14	4	36.3	35.6	9	1	5	55.3	51.9	-1	8	5	80.5	79.3
5	8	4	69.1	69.6	5	14	4	11.1	3.0	10	1	5	16.7	18.7	0	8	5	294.7	297.0
6	8	4	138.5	138.6	6	14	4	21.3	23.2	11	1	5	40.6	39.4	1	8	5	170.1	174.8
7	8	4	60.5	63.3	-14	15	4	13.5	3.4	12	1	5	53.6	51.1	2	8	5	195.8	200.4
8	8	4	54.1	56.2	-13	15	4	7.6	2.0	13	1	5	8.3	8.6	3	8	5	48.8	48.4
9	8	4	39.6	33.6	-12	15	4	24.0	27.8	14	1	5	30.1	25.5	4	8	5	105.0	104.0
10	8	4	9.6	5.2	-11	15	4	54.8	55.5	15	1	5	9.0	15.6	5	8	5	16.2	10.4
11	8	4	33.9	32.5	-10	15	4	43.3	46.6	16	1	5	22.1	18.8	6	8	5	18.9	20.8
12	8	4	46.0	42.8	-9	15	4	55.6	59.6	-1	2	5	36.2	33.2	7	8	5	43.7	45.0
-8	9	4	36.3	39.6	-8	15	4	42.8	48.3	0	2	5	99.7	100.9	8	8	5	44.7	45.1
-7	9	4	48.8	49.7	-7	15	4	20.5	20.0	1	2	5	81.0	58.0	9	8	5	14.0	24.3
-6	9	4	39.0	39.7	-6	15	4	33.6	33.4	2	2	5	206.6	199.2	10	8	5	65.8	65.4
-5	9	4	80.9	84.5	-5	15	4	19.4	15.1	3	2	5	150.0	148.9	11	8	5	19.7	18.9
-4	9	4	70.2	72.3	-4	15	4	7.5	5.1	4	2	5	56.7	55.4	12	8	5	54.4	45.8
-3	9	4	10.7	11.3	-3	15	4	22.8	19.7	5	2	5	10.8	14.3	-8	9	5	91.6	92.7
-2	9	4	125.2	122.6	-2	15	4	17.0	16.9	6	2	5	67.9	67.7	-7	9	5	6.8	2.5
-1	9	4	30.1	27.3	-1	15	4	11.4	21.3	7	2	5	26.9	21.4	-6	9	5	74.7	79.8

ARMANGITE

SHEET NO. 3 PART 1

H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
-5	9	5	6.4	11.8	-3	15	5	43.4	39.6	-2	3	6	71.7	73.8	7	9	6	23.4	26.6
-4	9	5	12.4	12.8	-2	15	5	34.6	38.1	-1	3	6	82.3	79.2	8	9	6	8.4	18.4
-3	9	5	7.2	4.1	-1	15	5	89.2	86.4	0	3	6	88.7	89.6	9	9	6	15.5	16.9
-2	9	5	58.4	55.9	0	15	5	8.2	6.7	1	3	6	41.6	40.7	10	9	6	19.0	18.7
-1	9	5	37.7	26.4	1	15	5	47.7	48.5	2	3	6	6.8	6.4	-9	10	6	25.8	26.2
0	9	5	60.1	61.8	2	15	5	29.8	27.8	3	3	6	90.9	86.7	-8	10	6	61.4	61.7
1	9	5	56.6	61.2	3	15	5	15.4	10.4	4	3	6	157.5	152.2	-7	10	6	39.5	39.1
2	9	5	6.8	7.5	4	15	5	33.2	37.1	5	3	6	69.4	67.5	-6	10	6	109.8	113.0
3	9	5	10.5	15.2	-15	16	5	41.9	41.9	6	3	6	79.3	77.4	-5	10	6	54.0	55.3
4	9	5	94.3	58.8	-14	16	5	41.3	43.0	7	3	6	108.4	107.8	-4	10	6	88.3	91.0
5	9	5	30.7	30.1	-13	16	5	41.0	43.0	8	3	6	56.5	56.4	-3	10	6	11.6	5.0
6	9	5	14.6	11.4	-12	16	5	53.8	54.3	9	3	6	117.0	113.9	-2	10	6	15.1	8.2
7	9	5	50.4	48.8	-11	16	5	7.6	3.9	10	3	6	61.3	60.9	-1	10	6	56.5	57.6
8	9	5	15.0	6.5	-10	16	5	9.8	16.1	11	3	6	8.3	0.2	0	10	6	80.8	79.6
9	9	5	21.3	21.8	-9	16	5	7.7	4.6	12	3	6	47.4	45.9	1	10	6	34.4	37.5
10	9	5	60.8	57.7	-8	16	5	9.0	5.5	13	3	6	55.6	47.2	2	10	6	20.4	18.4
11	9	5	42.0	37.5	-7	16	5	29.3	32.0	14	3	6	66.2	58.2	3	10	6	17.8	19.7
-9	10	5	89.8	51.9	-6	16	5	39.7	39.3	15	3	6	81.4	74.6	4	10	6	41.4	39.9
-8	10	5	38.9	40.6	-5	16	5	91.3	91.7	-3	4	6	81.5	82.9	5	10	6	25.2	24.9
-7	10	5	28.6	25.5	-4	16	5	123.0	122.9	-2	4	6	117.8	116.0	6	10	6	51.7	51.5
-6	10	5	174.9	179.2	-3	16	5	101.8	99.1	-1	4	6	42.0	42.7	7	10	6	8.2	2.2
-5	10	5	28.5	29.1	-2	16	5	77.8	76.3	0	4	6	89.5	88.2	8	10	6	40.4	37.9
-4	10	5	48.5	49.1	-1	16	5	10.7	9.2	1	4	6	27.5	26.4	9	10	6	26.2	14.1
-3	10	5	57.7	59.1	0	16	5	15.7	11.7	2	4	6	72.3	70.9	10	11	6	53.7	57.1
-2	10	5	185.3	181.6	1	16	5	8.4	10.6	3	4	6	10.4	0.7	-9	11	6	9.4	12.5
-1	10	5	34.3	30.5	2	16	5	13.5	19.7	4	4	6	227.1	219.2	-8	11	6	13.7	4.1
0	10	5	111.0	111.9	-16	17	5	28.2	30.1	5	4	6	95.9	94.3	-7	11	6	8.4	10.0
1	10	5	25.6	28.3	-15	17	5	42.4	40.2	6	4	6	134.8	131.8	-6	11	6	67.2	70.3
2	10	5	10.8	19.4	-14	17	5	16.7	27.5	7	4	6	62.0	60.8	-5	11	6	22.9	25.7
3	10	5	28.2	30.4	-13	17	5	10.2	20.7	8	4	6	95.9	92.9	-4	11	6	7.2	7.4
4	10	5	85.0	83.8	-12	17	5	16.7	27.5	9	4	6	41.4	41.7	-3	11	6	16.3	6.3
5	10	5	25.7	23.7	-11	17	5	43.8	41.7	10	4	6	38.1	40.1	-2	11	6	28.1	31.6
6	10	5	29.0	30.7	-10	17	5	39.5	41.8	11	4	6	21.8	17.7	-1	11	6	103.9	106.7
7	10	5	48.3	47.9	-9	17	5	41.2	41.7	12	4	6	9.8	22.6	0	11	6	7.6	16.7
8	10	5	42.2	41.2	-8	17	5	9.9	7.2	13	4	6	11.2	1.5	1	11	6	34.9	36.6
9	10	5	11.3	4.9	-7	17	5	8.1	16.0	14	4	6	63.1	58.4	2	11	6	104.8	107.8
10	10	5	8.7	7.0	-6	17	5	76.4	79.7	-4	4	6	110.1	113.0	3	11	6	37.8	37.8
-10	11	5	27.0	31.5	-5	17	5	11.4	9.4	-3	5	6	11.9	11.8	4	11	6	63.5	67.2
-9	11	5	75.0	77.2	-4	17	5	43.5	40.1	-2	5	6	141.3	138.9	5	11	6	8.2	9.9
-8	11	5	77.5	81.6	-3	17	5	36.7	32.6	-1	5	6	75.0	73.0	6	11	6	27.0	30.7
-7	11	5	84.2	86.4	-2	17	5	18.5	24.0	0	5	6	65.2	64.2	7	11	6	24.5	28.7
-6	11	5	45.5	45.8	-1	17	5	41.4	40.2	1	5	6	9.2	1.5	8	11	6	114.2	115.1
-5	11	5	44.0	46.5	0	17	5	67.8	59.9	2	5	6	11.8	11.4	-11	12	6		



-4	11	5	24.2	24.4	-16	18	5	10.6	12.7	3	5	13.4	5.9	-10	12	6	48.1	46.7
-3	11	5	36.4	37.4	-15	18	5	27.8	24.5	4	5	42.8	39.4	-9	12	6	61.1	60.4
-2	11	5	56.9	57.9	-14	18	5	22.7	25.8	5	5	57.2	96.7	-8	12	6	71.4	74.2
-1	11	5	15.5	20.2	-13	18	5	12.3	5.3	6	5	7.6	2.6	-7	12	6	24.9	26.5
0	11	5	49.2	50.7	-12	18	5	16.5	17.2	7	5	15.1	12.6	-6	12	6	21.4	22.0
1	11	5	16.7	20.3	-11	18	5	10.3	14.2	8	5	132.0	130.2	-5	12	6	20.3	22.5
2	11	5	72.0	72.8	-10	18	5	72.8	76.9	9	5	11.3	14.4	-4	12	6	7.3	1.3
3	11	5	12.1	16.5	-9	18	5	68.7	70.8	10	5	10.8	11.1	-3	12	6	12.4	0.8
4	11	5	55.0	57.8	-8	18	5	52.2	56.3	11	5	34.5	36.8	-2	12	6	21.2	19.6
5	11	5	7.8	2.9	-7	18	5	11.1	11.9	12	5	16.7	16.6	-1	12	6	34.0	33.4
6	11	5	15.7	12.6	-6	18	5	108.1	106.7	13	5	12.2	13.1	0	12	6	112.5	111.9
7	11	5	78.0	78.6	-5	18	5	26.2	27.7	-5	6	107.7	111.0	1	12	6	91.6	94.2
8	11	5	11.1	5.7	-4	18	5	25.3	30.8	-4	6	49.8	51.7	2	12	6	108.2	111.1
9	11	5	30.1	27.8	-3	18	5	23.7	25.3	-3	6	28.3	30.0	3	12	6	52.5	53.5
-11	12	5	57.0	55.3	-2	18	5	18.6	12.7	-2	6	121.4	118.7	4	12	6	8.1	8.8
-10	12	5	9.6	8.1	-15	19	5	9.3	3.6	-1	6	22.3	22.5	5	12	6	13.9	21.5
-9	12	5	54.7	57.9	-14	19	5	11.6	18.8	0	6	42.0	43.4	6	12	6	19.1	11.4
-8	12	5	181.4	150.4	-13	19	5	8.3	10.9	1	6	77.9	79.5	7	12	6	27.5	22.9
-7	12	5	181.1	192.3	-12	19	5	25.1	26.8	2	6	133.1	132.4	-12	13	6	10.5	23.9
-6	12	5	117.5	120.9	-11	19	5	41.3	46.2	3	6	37.8	40.0	-11	13	6	10.6	11.5
-5	12	5	6.9	2.3	-10	19	5	10.8	3.4	4	6	114.8	114.1	-10	13	6	54.6	53.2
-4	12	5	88.6	89.1	-9	19	5	55.1	55.4	5	6	20.3	16.4	-9	13	6	18.9	18.4
-3	12	5	71.3	66.7	-8	19	5	15.0	23.6	6	6	7.3	6.0	-8	13	6	60.5	63.1
-2	12	5	13.0	0.2	-7	19	5	36.8	43.7	7	6	29.3	29.7	-7	13	6	47.2	45.4
-1	12	5	17.3	13.3	-6	19	5	13.9	13.2	8	6	29.6	30.1	-6	13	6	55.6	59.6
0	12	5	22.7	25.2	-5	19	5	18.0	11.8	9	6	33.7	36.4	-5	13	6	59.4	59.7
1	12	5	36.3	38.5	-4	19	5	8.7	11.7	10	6	28.7	28.4	-4	13	6	45.9	47.4
2	12	5	33.3	34.4	-12	20	5	65.5	70.0	11	6	52.2	48.8	-3	13	6	7.7	18.3
3	12	5	26.3	20.1	-11	20	5	54.5	60.9	12	6	48.1	48.0	-2	13	6	64.0	63.6
4	12	5	118.7	121.4	-10	20	5	19.5	22.8	13	6	20.7	14.3	-1	13	6	14.3	20.3
5	12	5	50.1	50.6	-5	20	5	8.4	3.7	-6	6	21.5	20.0	0	13	6	66.5	70.0
6	12	5	56.4	58.3	-8	20	5	35.1	37.0	-5	6	130.2	130.2	1	13	6	37.5	40.2
7	12	5	46.2	42.1	0	20	5	388.9	435.5	-4	6	90.8	91.5	2	13	6	23.4	22.8
8	12	5	20.5	23.7	1	20	5	81.6	86.9	-3	6	23.7	12.3	3	13	6	66.3	67.3
-12	13	5	53.6	53.8	2	20	5	155.2	163.7	-2	6	56.4	53.8	4	13	6	44.4	41.5
-11	13	5	46.3	49.2	3	20	5	72.5	77.9	-1	6	89.5	90.5	5	13	6	13.4	16.1
-10	13	5	97.3	101.2	4	20	5	106.7	110.4	0	6	91.7	94.2	6	13	6	53.2	55.0
-9	13	5	11.7	13.2	5	20	5	27.2	27.1	1	6	59.4	60.2	-13	14	6	7.7	2.9
-8	13	5	15.0	21.0	6	20	5	23.3	25.7	2	6	31.6	33.8	-12	14	6	9.7	8.3
-7	13	5	25.7	30.0	7	20	5	11.8	2.6	3	6	53.3	51.8	-11	14	6	58.0	61.1
-6	13	5	29.2	30.0	8	20	5	13.6	13.4	4	6	84.3	86.7	-10	14	6	30.8	35.1
-5	13	5	55.3	64.1	9	20	5	167.3	167.6	5	6	51.8	52.3	-9	14	6	19.3	25.9
-4	13	5	42.8	41.2	10	20	5	27.1	28.1	6	6	45.6	45.8	-8	14	6	8.4	9.3
-3	13	5	25.9	22.8	11	20	5	102.7	101.6	7	6	88.0	88.4	-7	14	6	75.5	79.1
-2	13	5	47.8	48.2	12	20	5	14.4	9.4	8	6	10.9	8.4	-6	14	6	29.3	30.4
-1	13	5	39.1	39.4	13	20	5	98.3	95.0	9	6	38.4	34.3	-5	14	6	48.9	50.4
0	13	5	47.6	48.0	14	20	5	22.4	20.0	10	6	19.0	44.2	-4	14	6	23.9	18.1
1	13	5	11.3	1.4	15	20	5	18.3	14.2	11	6	6.6	13.7	-3	14	6	135.9	130.7
2	13	5	73.3	74.9	16	20	5	12.9	9.2	12	6	6.6	3.4	-2	14	6	21.4	22.9
3	13	5	12.5	24.2	0	20	5	35.4	36.5	-7	6	8.8	2.7	-1	14	6	62.2	79.7
4	13	5	47.6	50.7	1	20	5	12.9	9.2	-6	6	8.8	2.7	0	14	6	62.2	79.7

5	13	E	20.8	17.8	2	1	€	39.3	41.8	-5	8	6	29.1	31.7	1	14	6	16.9	27.8
6	13	E	11.1	14.0	3	1	€	136.2	137.1	-4	8	6	225.7	239.3	2	14	6	8.1	4.3
-13	14	E	80.3	78.1	4	1	€	72.1	72.0	-3	8	6	162.5	157.8	3	14	6	27.4	29.5
-12	14	E	48.7	46.3	5	1	€	6.5	4.9	-2	8	6	34.2	30.6	4	14	6	27.5	30.4
-11	14	E	28.2	33.0	6	1	€	73.8	73.7	-1	8	6	79.7	81.3	-14	15	6	31.6	30.8
-10	14	E	106.5	109.2	7	1	€	67.0	64.9	0	8	6	12.2	9.2	-13	15	6	18.6	16.8
-9	14	E	35.4	38.9	8	1	€	15.0	3.0	1	8	6	22.7	21.9	-12	15	6	7.9	13.1
-8	14	E	7.1	12.0	9	1	€	8.7	9.2	2	8	6	28.3	33.0	-11	15	6	16.9	22.6
-7	14	E	18.8	22.6	10	1	€	29.7	31.5	3	8	6	36.0	33.8	-10	15	6	19.9	22.7
-6	14	E	16.1	19.8	11	1	€	24.4	22.9	4	8	6	38.2	35.6	-9	15	6	17.1	18.2
-5	14	E	38.3	37.4	12	1	€	9.4	4.2	5	8	6	67.3	65.7	-8	15	6	96.2	101.6
-4	14	E	60.9	61.2	13	1	€	101.8	93.3	6	8	6	57.7	60.3	-7	15	6	24.1	30.6
-3	14	E	19.6	11.7	14	1	€	16.1	16.0	7	8	6	29.3	25.1	-6	15	6	17.4	26.3
-2	14	E	24.3	29.0	15	1	€	20.3	7.1	8	8	6	44.9	44.8	-5	15	6	56.8	56.6
-1	14	E	12.8	29.9	16	1	€	72.6	65.3	9	8	6	106.4	101.6	-4	15	6	11.7	5.1
0	14	E	31.9	32.9	-1	0	€	50.2	50.8	10	8	6	42.0	50.6	-3	15	6	33.7	40.0
1	14	E	15.5	18.0	0	1	€	78.0	76.1	11	8	6	52.0	53.2	-2	15	6	15.6	13.2
2	14	E	100.0	99.0	1	2	€	21.3	16.7	-8	9	6	7.2	0.5	-1	15	6	20.0	19.1
3	14	E	10.8	8.7	2	2	€	65.5	66.6	-7	9	6	78.8	81.7	0	15	6	42.6	38.4
4	14	E	33.1	29.8	3	3	€	18.4	16.0	-6	9	6	23.8	28.3	1	15	6	8.2	3.8
5	14	E	11.7	8.1	4	4	€	42.9	43.8	-5	9	6	65.3	65.0	2	15	6	37.8	42.6
-14	15	E	64.4	64.7	5	5	€	82.2	82.9	-4	9	6	82.6	82.0	3	15	6	13.4	7.6
-13	15	E	33.4	34.1	6	6	€	34.2	36.0	-3	9	6	7.2	19.2	-15	16	6	35.1	35.8
-12	15	E	22.9	36.8	7	7	€	37.8	38.9	-2	9	6	9.0	5.9	-14	16	6	8.3	9.6
-11	15	E	7.4	4.4	8	8	€	65.6	62.8	-1	9	6	59.7	60.6	-13	16	6	8.1	10.8
-10	15	E	60.6	61.8	9	9	€	13.0	15.3	0	9	6	10.5	16.3	-12	16	6	10.7	18.0
-9	15	E	13.1	10.0	10	10	€	49.9	48.5	1	9	6	71.5	71.4	-11	16	6	31.3	31.0
-8	15	E	38.4	39.0	11	11	€	9.1	15.2	2	9	6	10.0	13.8	-10	16	6	13.6	19.4
-7	15	E	35.3	33.3	12	12	€	18.2	22.1	3	9	6	38.9	41.1	-9	16	6	59.1	60.0
-6	15	E	9.4	14.1	13	13	€	47.3	44.8	4	9	6	15.4	18.7	-8	16	6	82.2	82.7
-5	15	E	17.1	28.2	14	14	€	5.0	11.4	5	9	6	62.1	61.3	-7	16	6	105.9	108.0
-4	15	E	64.3	66.0	15	15	€	46.6	40.6	6	9	6			-6	16	6	36.9	39.0



ARMANGITE

SHEET NO. 3 PART 2

H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
-5	16	6	11.9	8.6	12	4	7	39.6	40.6	6	11	7	34.6	37.3	15	0	8	28.3	20.2
-4	16	6	17.3	20.0	13	4	7	16.8	15.1	7	11	7	29.7	30.3	0	1	8	10.0	8.5
-3	16	6	13.5	13.3	-4	5	7	13.3	14.3	-11	12	7	21.9	25.9	1	1	8	64.7	63.5
-2	16	6	40.0	32.5	-3	5	7	16.8	4.2	-10	12	7	45.2	45.7	3	2	8	57.7	58.3
-1	16	6	14.3	4.7	-2	5	7	30.5	31.1	-9	12	7	19.8	15.7	3	3	8	36.3	34.6
0	16	6	12.2	4.1	-1	5	7	6.9	4.0	-8	12	7	12.0	5.9	4	4	8	13.1	15.6
1	16	6	47.1	49.2	0	5	7	30.0	26.4	-7	12	7	35.7	38.5	5	5	8	87.1	85.2
-16	17	6	40.3	35.5	1	5	7	89.4	90.9	-6	12	7	16.0	27.8	6	6	8	18.3	3.9
-15	17	6	57.0	58.3	2	5	7	53.7	54.6	-5	12	7	34.0	38.5	7	7	8	85.3	81.7
-14	17	6	20.4	23.0	3	5	7	51.2	51.4	-4	12	7	91.0	90.9	8	8	8	69.0	68.7
-13	17	6	10.7	10.4	4	5	7	74.3	73.0	-3	12	7	148.3	144.9	9	9	8	35.3	36.7
-12	17	6	25.2	24.0	5	5	7	12.0	2.9	-2	12	7	93.5	92.6	10	10	8	13.3	10.3
-11	17	6	26.9	24.1	6	5	7	54.3	54.0	-1	12	7	20.6	16.1	11	11	8	12.1	11.0
-10	17	6	68.9	70.6	7	5	7	31.4	32.7	0	12	7	26.7	26.7	12	12	8	15.6	8.1
-9	17	6	10.1	1.9	8	5	7	17.0	8.7	1	12	7	9.8	3.0	13	13	8	11.3	4.0
-8	17	6	45.9	49.5	9	5	7	13.2	4.6	2	12	7	15.1	17.1	14	14	8	50.5	43.2
-7	17	6	45.1	44.8	10	5	7	66.8	66.4	3	12	7	28.5	23.3	-1	1	8	23.3	26.8
-6	17	6	35.2	35.6	11	5	7	9.5	5.1	4	12	7	9.1	14.8	0	2	8	93.5	90.8
-5	17	6	37.6	41.4	12	5	7	12.6	13.4	5	12	7	34.8	32.2	1	2	8	53.0	50.3
-4	17	6	59.5	57.6	13	5	7	44.8	42.7	6	12	7	36.8	40.3	2	2	8	153.5	149.1
-3	17	6	10.3	13.2	-5	6	7	15.5	19.9	-12	13	7	90.7	91.1	3	3	8	99.1	96.9
-2	17	6	8.9	20.3	-4	6	7	57.4	55.8	-11	13	7	42.1	44.9	4	4	8	93.4	93.2
-1	17	6	15.3	20.1	-3	6	7	45.7	50.2	-10	13	7	11.6	15.7	5	5	8	18.9	17.9
-15	18	6	20.6	24.8	-2	6	7	135.6	132.2	-9	13	7	22.0	26.4	6	6	8	49.2	48.2
-14	18	6	74.3	69.9	-1	6	7	7.0	3.2	-8	13	7	10.4	3.6	7	7	8	10.5	14.5
-13	18	6	87.7	84.5	0	6	7	122.1	123.1	-7	13	7	15.3	18.8	8	8	8	51.1	48.3
-12	18	6	50.9	52.1	1	6	7	20.1	25.6	-6	13	7	84.0	88.2	9	9	8	54.4	55.0
-11	18	6	25.1	25.5	2	6	7	14.9	23.8	-5	13	7	32.2	32.3	10	10	8	27.9	32.0
-10	18	6	56.2	59.6	3	6	7	14.4	21.0	-4	13	7	61.8	64.5	11	11	8	30.9	31.7
-9	18	6	8.2	15.7	4	6	7	23.3	24.4	-3	13	7	51.7	50.6	12	12	8	46.8	45.8
-8	18	6	24.8	25.6	5	6	7	77.0	77.2	-2	13	7	15.3	1.5	13	13	8	19.0	16.7
-7	18	6	22.9	19.1	6	6	7	27.4	27.2	-1	13	7	50.3	52.7	14	14	8	11.7	18.8
-6	18	6	11.3	6.8	7	6	7	13.5	8.6	0	13	7	53.9	52.9	-2	2	8	80.0	80.8
-5	18	6	32.0	34.5	8	6	7	56.9	55.2	1	13	7	29.1	30.7	-1	3	8	67.1	64.1
-4	18	6	16.5	14.4	9	6	7	12.3	21.8	2	13	7	27.4	26.1	0	3	8	101.5	100.8
-3	18	6	31.2	30.7	10	6	7	13.2	18.3	3	13	7	9.4	5.9	1	3	8	73.8	72.3
-13	19	6	29.7	23.1	11	6	7	22.6	26.4	4	13	7	32.9	31.3	2	3	8	129.1	123.6
-12	19	6	21.4	19.7	12	6	7	33.3	35.9	5	13	7	21.4	17.1	3	3	8	22.0	16.9
-11	19	6	34.1	32.8	-6	7	7	67.3	67.6	-13	14	7	30.6	29.2	4	4	8	37.3	35.6
-10	19	6	32.5	29.9	-5	7	7	18.0	5.3	-12	14	7	50.4	50.8	5	5	8	70.4	69.2
-9	19	6	17.0	0.9	-4	7	7	97.8	100.4	-11	14	7	49.1	47.9	6	6	8	8.0	1.0
-8	19	6	10.8	12.6	-3	7	7	8.3	8.2	-10	14	7	122.6	128.3	7	7	8	81.6	77.3
-7	19	6	12.2	3.2	-2	7	7	58.8	55.4	-9	14	7	54.0	56.6	8	8	8	124.7	120.4



-6	19	6	23.5	22.2	-1	7	7	7	10.2	3.2	-8	14	7	56.1	59.0	9	3	8	48.3	44.7
0	0	7	12.1	18.3	0	7	7	7	45.1	43.1	-7	14	7	29.9	34.7	10	3	8	66.1	61.4
1	0	7	101.4	108.3	1	7	7	7	34.4	37.7	-6	14	7	100.6	104.2	11	3	8	60.1	59.4
2	0	7	47.7	52.1	2	7	7	7	7.7	7.4	-5	14	7	16.2	24.5	12	3	8	28.2	28.3
3	0	7	20.8	22.3	3	7	7	7	55.8	57.6	-4	14	7	66.5	68.2	13	3	8	64.4	57.9
4	0	7	74.8	75.6	4	7	7	7	113.6	114.9	-3	14	7	28.4	28.3	-3	4	8	157.3	156.4
5	0	7	30.2	29.5	5	7	7	7	57.2	58.2	-2	14	7	15.5	15.4	-2	4	8	185.2	182.8
6	0	7	168.8	172.3	6	7	7	7	27.4	29.9	-1	14	7	40.1	36.1	-1	4	8	27.7	22.6
7	0	7	14.2	18.3	7	7	7	7	88.4	91.3	0	14	7	35.9	35.7	0	4	8	36.5	36.2
8	0	7	131.6	133.0	8	7	7	7	52.8	47.7	1	14	7	11.3	7.1	1	4	8	18.6	11.7
9	0	7	18.4	15.2	9	7	7	7	77.4	81.2	2	14	7	12.5	1.3	2	4	8	24.8	29.0
10	0	7	85.4	85.1	10	7	7	7	13.6	13.7	3	14	7	11.6	6.3	3	4	8	12.0	11.9
11	0	7	14.2	7.2	11	7	7	7	15.4	14.4	-14	15	7	8.3	6.9	4	4	8	22.9	19.0
12	0	7	47.6	44.3	-7	8	7	7	181.0	183.5	-13	15	7	12.2	3.3	5	4	8	23.3	26.8
13	0	7	16.6	18.9	-6	8	7	7	114.3	113.2	-12	15	7	54.6	55.9	6	4	8	128.2	124.3
14	0	7	51.6	46.7	-5	8	7	7	29.5	29.5	-11	15	7	30.5	22.1	7	4	8	36.5	36.0
15	0	7	8.7	5.7	-4	8	7	7	53.9	57.2	-10	15	7	42.6	49.9	8	4	8	21.4	28.1
16	0	7	10.5	17.0	-3	8	7	7	7.6	21.0	-9	15	7	43.9	47.6	9	4	8	37.8	36.6
0	1	7	68.0	63.0	-2	8	7	7	65.7	60.6	-8	15	7	13.0	3.2	10	4	8	86.1	84.1
1	1	7	20.3	23.3	-1	8	7	7	25.6	26.6	-7	15	7	14.9	4.1	11	4	8	27.5	30.2
2	1	7	110.3	110.0	0	8	7	7	8.3	5.8	-6	15	7	16.3	16.5	12	4	8	16.6	19.3
3	1	7	83.0	82.6	1	8	7	7	11.9	17.2	-5	15	7	11.5	7.7	13	4	8	9.5	6.8
4	1	7	52.4	49.3	2	8	7	7	62.1	64.7	-4	15	7	8.3	7.5	-3	5	8	62.4	62.6
5	1	7	44.7	45.1	3	8	7	7	46.2	46.9	-3	15	7	15.9	14.1	-2	5	8	104.3	104.9
6	1	7	31.8	32.2	4	8	7	7	74.3	76.9	-2	15	7	8.7	4.6	-1	5	8	43.7	43.9
7	1	7	19.5	25.8	5	8	7	7	57.3	56.8	-1	15	7	17.7	13.3	0	5	8	76.6	75.4
8	1	7	8.6	14.4	6	8	7	7	110.4	109.6	0	15	7	51.2	53.8	1	5	8	44.1	46.7
9	1	7	124.6	118.8	7	8	7	7	72.0	75.7	1	15	7	8.5	7.4	2	5	8	10.0	0.6
10	1	7	15.8	12.0	8	8	7	7	38.2	35.5	2	15	7	29.9	28.8	3	5	8	96.0	95.9
11	1	7	15.3	18.9	9	8	7	7	8.6	10.3	-15	16	7	25.9	28.9	4	5	8	29.2	29.5
12	1	7	84.3	77.1	10	8	7	7	14.5	15.2	-14	16	7	14.6	24.6	5	5	8	36.1	32.6
13	1	7	48.3	47.2	-8	9	7	7	19.6	14.1	-13	16	7	30.8	28.8	6	5	8	13.7	8.5
14	1	7	11.0	7.7	-7	9	7	7	61.9	61.8	-12	16	7	54.6	55.3	7	5	8	57.5	58.2
15	1	7	15.0	10.9	-6	9	7	7	7.4	2.2	-11	16	7	75.8	81.6	8	5	8	16.9	18.4
-1	2	7	37.3	36.2	-5	9	7	7	16.1	11.9	-10	16	7	15.6	23.2	9	5	8	39.7	37.4
0	2	7	119.2	117.9	-4	9	7	7	70.2	73.2	-9	16	7	9.2	8.0	10	5	8	51.5	51.2
1	2	7	82.9	80.4	-3	9	7	7	10.9	7.9	-8	16	7	21.5	24.5	11	5	8	9.8	9.8
2	2	7	88.1	83.2	-2	9	7	7	113.9	111.8	-7	16	7	15.9	18.2	12	5	8	17.8	19.8
3	2	7	61.5	62.7	-1	9	7	7	7.3	9.8	-6	16	7	31.1	38.5	13	5	8	72.6	68.2
4	2	7	81.5	80.5	0	9	7	7	66.7	65.8	-5	16	7	30.9	28.2	-5	6	8	52.6	51.4
5	2	7	66.5	67.9	1	9	7	7	7.2	9.0	-4	16	7	18.5	16.5	-4	6	8	100.4	100.7
6	2	7	51.4	52.2	2	9	7	7	51.2	53.4	-3	16	7	8.6	12.8	-3	6	8	18.3	18.2
7	2	7	62.4	60.7	3	9	7	7	14.5	9.1	-2	16	7	31.8	31.9	-2	6	8	15.7	1.8
8	2	7	61.0	61.4	4	9	7	7	17.1	23.5	-1	16	7	28.3	25.3	-1	6	8	57.2	55.0
9	2	7	12.2	17.4	5	9	7	7	34.0	33.7	0	16	7	56.3	56.2	0	6	8	19.2	17.6
10	2	7	12.6	12.8	6	9	7	7	10.4	6.3	-15	17	7	52.9	50.7	1	6	8	121.0	123.0
11	2	7	51.0	45.9	7	9	7	7	8.4	14.4	-14	17	7	67.5	70.6	2	6	8	69.8	71.4
12	2	7	17.1	21.8	8	9	7	7	79.0	74.7	-13	17	7	16.5	23.5	3	6	8	7.6	14.4
13	2	7	24.1	22.7	9	9	7	7	15.4	19.8	-12	17	7	29.0	34.1	4	6	8	43.2	45.0
14	2	7	20.6	5.9	-9	10	7	7	81.8	80.4	-11	17	7	21.6	17.8	5	6	8	66.3	69.4
15	2	7	25.8	26.1	-8	10	7	7	28.3	25.5	-10	17	7	30.1	27.4	6	6	8	80.5	82.3

-2	3	7	11.9	15.2	-7	10	7	22.1	24.1	-9	17	7	14.2	11.1	7	6	8	12.2	4.1
-1	3	7	126.3	121.0	-6	10	7	51.9	55.1	-8	17	7	61.0	62.2	8	6	8	74.9	69.2
0	3	7	88.8	89.5	-5	10	7	60.5	61.2	-7	17	7	19.6	20.9	9	6	8	12.1	9.8
1	3	7	70.8	68.5	-4	10	7	9.0	4.0	-6	17	7	39.9	39.0	10	6	8	15.1	23.7
2	3	7	32.4	30.2	-3	10	7	54.8	56.7	-5	17	7	40.3	39.4	11	6	8	42.0	40.7
3	3	7	80.5	77.8	-2	10	7	81.0	82.2	-4	17	7	14.3	21.3	-6	7	8	118.8	121.0
4	3	7	59.6	59.0	-1	10	7	11.3	7.5	-3	17	7	13.2	17.3	-5	7	8	38.4	37.6
5	3	7	143.8	142.5	0	10	7	21.6	21.6	-2	17	7	60.2	61.4	-4	7	8	35.9	38.8
6	3	7	74.9	75.9	1	10	7	74.7	76.8	-13	18	7	10.5	12.1	-3	7	8	37.6	40.2
7	3	7	51.0	49.8	2	10	7	57.1	100.7	-12	18	7	10.0	1.5	-2	7	8	10.1	16.4
8	3	7	22.8	17.7	3	10	7	10.5	13.0	-11	18	7	8.4	2.7	-1	7	8	95.1	93.6
9	3	7	60.9	62.1	4	10	7	51.7	94.1	-10	18	7	21.7	24.0	0	7	8	100.8	100.3
10	3	7	33.0	29.1	5	10	7	10.2	1.6	-9	18	7	12.9	10.5	1	7	8	48.0	51.5
11	3	7	85.3	86.2	6	10	7	12.2	17.5	-8	18	7	8.4	14.6	2	7	8	7.5	2.3
12	3	7	77.4	75.7	7	10	7	26.8	30.8	-7	18	7	12.0	6.0	3	7	8	124.1	125.8
13	3	7	9.6	13.3	8	10	7	8.7	3.6	-6	18	7	27.8	30.0	4	7	8	48.1	50.1
14	3	7	52.3	50.0	-10	11	7	64.7	62.5	-5	18	7	31.9	30.3	5	7	8	98.9	100.2
-3	4	7	8.3	3.1	-9	11	7	20.5	19.7	0	0	8	111.8	121.5	6	7	8	21.9	23.6
-2	4	7	53.4	54.3	-8	11	7	8.3	3.6	1	0	8	24.3	26.2	7	7	8	40.1	41.2
-1	4	7	19.0	23.4	-7	11	7	29.1	31.3	2	0	8	103.4	110.1	8	7	8	33.6	36.5
0	4	7	262.2	263.8	-6	11	7	37.9	38.4	3	0	8	30.1	30.4	9	7	8	24.0	28.5
1	4	7	130.4	127.8	-5	11	7	47.9	63.6	4	0	8	201.5	206.2	10	7	8	39.9	35.9
2	4	7	174.9	169.7	-4	11	7	116.5	116.2	5	0	8	55.9	57.8	-7	8	8	13.6	11.7
3	4	7	33.4	32.4	-3	11	7	9.1	5.7	6	0	8	128.1	130.0	-6	8	8	84.6	84.6
4	4	7	75.5	74.9	-2	11	7	41.1	40.9	7	0	8	9.0	6.9	-5	8	8	20.7	25.7
5	4	7	20.8	21.6	-1	11	7	96.6	95.0	8	0	8	21.9	24.1	-4	8	8	39.4	40.7
6	4	7	33.7	36.6	0	11	7	67.6	67.5	9	0	8	10.8	4.8	-3	8	8	59.3	54.1
7	4	7	21.1	30.5	1	11	7	54.4	57.2	10	0	8	78.6	77.4	-2	8	8	32.5	35.8
8	4	7	30.5	30.7	2	11	7	30.6	27.7	11	0	8	31.7	27.4	-1	8	8	10.4	5.2
9	4	7	8.2	2.9	3	11	7	46.8	58.5	12	0	8	10.7	4.8	0	8	8	100.2	103.3
10	4	7	119.3	114.5	4	11	7	36.0	37.7	13	0	8	20.8	18.5	1	8	8	123.3	126.4
11	4	7	15.9	22.6	5	11	7	8.3	7.0	14	0	8	109.2	103.3	2	8	8	131.7	135.2

ARMANGITE

SHEET NO. 4 PART 1

H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
3	8	8	38.4	36.8	-13	16	8	20.0	18.2	6	6	9	15.5	2.2	-5	14	9	35.1	33.9
4	8	8	39.0	37.6	-12	16	8	8.4	4.2	7	6	9	22.8	21.0	-4	14	9	37.5	40.2
5	8	8	20.2	15.8	-11	16	8	16.6	4.3	8	6	9	18.8	7.7	-3	14	9	16.7	15.0
6	8	8	30.4	28.5	-10	16	8	10.6	6.3	9	6	9	47.3	43.0	-2	14	9	106.7	102.3
7	8	8	34.6	33.2	-9	16	8	31.0	32.0	10	6	9	35.9	34.3	-1	14	9	26.8	26.2
8	8	8	30.6	24.3	-8	16	8	12.0	5.1	-6	7	9	7.6	3.3	0	14	9	91.1	87.1
9	8	8	13.1	3.1	-7	16	8	8.5	5.2	-5	7	9	94.4	92.5	-13	15	9	19.3	15.6
-8	9	8	90.9	92.5	-6	16	8	41.8	43.1	-4	7	9	73.2	73.0	-12	15	9	25.6	16.8
-7	9	8	9.3	2.0	-5	16	8	53.8	53.3	-3	7	9	17.0	12.6	-11	15	9	32.7	33.4
-6	9	8	52.0	53.1	-4	16	8	35.7	30.7	-2	7	9	24.3	25.3	-10	15	9	21.2	20.1
-5	9	8	34.1	32.0	-3	16	8	78.3	76.0	-1	7	9	61.9	61.5	-9	15	9	19.8	23.8
-4	9	8	23.3	21.3	-2	16	8	42.2	42.6	0	7	9	70.8	69.0	-8	15	9	72.1	76.0
-3	9	8	10.4	1.4	-13	17	8	10.0	9.9	1	7	9	61.3	64.3	-7	15	9	40.1	41.8
-2	9	8	57.4	57.6	-12	17	8	47.8	50.0	2	7	9	28.8	23.8	-6	15	9	12.5	24.4
-1	9	8	40.7	43.2	-11	17	8	37.7	40.2	3	7	9	65.9	67.3	-5	15	9	38.9	41.4
0	9	8	14.2	15.6	-10	17	8	30.8	31.1	4	7	9	18.6	14.9	-4	15	9	10.9	14.4
1	9	8	42.3	43.4	-9	17	8	33.6	32.2	5	7	9	53.0	51.1	-3	15	9	32.5	26.6
2	9	8	19.2	21.8	-8	17	8	8.5	8.4	6	7	9	34.1	38.0	-2	15	9	11.9	7.8
3	9	8	11.4	8.2	-7	17	8	16.0	12.7	7	7	9	38.8	34.8	-12	16	9	30.9	30.1
4	9	8	67.8	68.4	-6	17	8	72.5	74.1	8	7	9	80.5	80.3	-11	16	9	22.9	17.8
5	9	8	30.3	29.2	-5	17	8	27.6	23.4	9	7	9	10.6	3.8	-10	16	9	14.0	20.8
6	9	8	8.5	2.0	-4	17	8	8.8	15.8	-7	8	9	19.1	18.1	-9	16	9	26.4	27.4
7	9	8	20.6	19.8	0	0	9	176.9	193.7	-6	8	9	15.6	21.0	-8	16	9	11.6	7.1
8	9	8	20.6	24.3	1	0	9	83.3	87.7	-5	8	9	7.6	11.0	-7	16	9	98.8	101.0
-9	10	8	65.6	62.8	2	0	9	141.8	148.9	-4	8	9	80.7	85.0	-6	16	9	33.3	30.8
-8	10	8	54.2	55.8	3	0	9	10.4	6.8	-3	8	9	187.0	184.4	-5	16	9	22.4	23.7
-7	10	8	57.5	60.2	4	0	9	45.9	45.9	-2	8	9	141.7	140.2	-4	16	9	12.6	14.9
-6	10	8	143.9	147.7	5	0	9	55.0	57.0	-1	8	9	16.0	3.0	0	0	10	56.9	56.9
-5	10	8	22.7	25.0	6	0	9	28.4	26.0	0	8	9	7.9	7.3	1	0	10	108.2	115.7
-4	10	8	52.5	54.8	7	0	9	37.7	43.3	1	8	9	9.9	11.3	2	0	10	29.3	33.3
-3	10	8	69.9	69.4	8	0	9	41.8	40.4	2	8	9	11.0	17.3	3	0	10	27.2	28.2
-2	10	8	135.4	134.7	5	0	9	29.5	30.0	3	8	9	8.1	5.3	4	0	10	117.2	119.5
-1	10	8	24.1	26.9	10	0	9	123.4	122.9	4	8	9	8.3	3.2	5	0	10	13.0	2.1
0	10	8	127.0	128.7	11	0	9	28.1	28.9	5	8	9	15.5	2.0	6	0	10	87.8	87.8
1	10	8	12.3	13.0	12	0	9	10.4	2.5	6	8	9	53.1	53.5	7	0	10	8.2	2.1
2	10	8	10.4	13.0	13	0	9	38.0	32.3	7	8	9	22.4	26.5	8	0	10	19.0	16.3
3	10	8	24.2	22.8	14	0	9	71.5	67.6	8	8	9	19.7	10.8	9	0	10	39.1	39.7
4	10	8	30.4	33.1	0	0	9	41.1	38.0	8	8	9	28.4	24.8	10	0	10	66.3	64.3
5	10	8	45.7	48.4	1	0	9	57.7	55.6	-7	9	9	10.6	2.4	11	0	10	15.0	18.0
6	10	8	11.8	24.7	2	1	9	8.0	8.3	-6	9	9	75.5	79.4	12	0	10	9.7	6.0
7	10	8	20.9	18.8	3	1	9	113.7	115.7	-5	9	9	53.0	54.0	13	0	10	30.8	29.1
-10	11	8	32.9	34.5	4	1	9	42.9	44.1	-4	9	9	9.3	2.7	0	1	10	22.2	22.8
-9	11	8	54.3	54.0	5	1	9	7.6	3.5	-3	9	9	53.6	51.2	1	1	10	17.1	23.7



-8	11	€	70.2	73.0	€	7	1	9	48.4	46.9	-2	9	9	15.6	15.1	2	1	10	81.5	81.3
-7	11	€	25.5	30.2	€	7	1	9	31.2	30.3	-1	9	9	20.8	20.7	3	1	10	50.5	51.1
-6	11	€	59.0	61.5	€	8	1	9	26.7	24.1	0	9	9	40.2	43.1	4	1	10	51.4	53.2
-5	11	€	48.9	53.7	€	9	1	9	14.0	11.5	1	9	9	30.3	32.8	5	1	10	37.7	36.5
-4	11	€	32.1	33.1	€	10	1	9	38.9	42.3	2	9	9	45.2	48.4	6	1	10	25.8	24.6
-3	11	€	8.4	16.4	€	11	1	9	30.4	28.8	3	9	9	8.2	3.5	7	1	10	37.4	37.3
-2	11	€	35.9	35.9	€	12	1	5	40.1	35.6	4	9	9	58.1	60.6	8	1	10	44.1	46.1
-1	11	€	30.5	30.4	€	13	1	9	€5.6	79.4	5	9	9	16.8	16.9	9	1	10	104.8	99.5
0	11	€	34.8	21.0	€	-1	2	5	31.3	35.0	6	9	9	70.1	68.7	10	1	10	11.7	15.3
1	11	€	14.1	0.9	€	0	2	9	86.4	85.3	7	9	9	9.1	4.6	11	1	10	23.5	20.4
2	11	€	33.9	34.8	€	1	2	9	7.6	6.5	-8	10	9	26.2	18.9	12	1	10	60.8	56.4
3	11	€	17.7	17.1	€	2	2	9	49.3	49.6	-8	10	9	50.2	53.0	-1	2	10	13.2	19.4
4	11	€	65.0	65.9	€	3	2	9	9.0	5.0	-7	10	9	39.4	39.5	0	2	10	75.2	70.4
5	11	€	8.6	6.5	€	4	2	9	€5.3	64.9	-6	10	9	90.4	93.0	1	2	10	57.8	57.1
6	11	€	8.6	2.2	€	5	2	9	54.2	91.1	-5	10	5	49.3	50.8	2	2	10	53.3	53.9
-11	12	€	20.2	15.3	€	6	2	9	58.5	60.5	-4	10	9	98.5	100.6	3	2	10	47.6	47.4
-10	12	€	35.8	34.8	€	7	2	9	22.9	21.8	-3	10	9	11.8	5.6	4	2	10	60.8	59.9
-9	12	€	13.1	18.7	€	8	2	9	59.9	58.8	-2	10	9	14.9	3.9	5	2	10	26.4	31.3
-8	12	€	47.1	€0.0	€	9	2	9	15.4	7.4	-1	10	9	29.8	28.9	6	2	10	50.3	48.1
-7	12	€	152.0	156.7	€	10	2	9	42.8	44.3	0	10	5	42.7	39.0	7	2	10	39.6	38.3
-6	12	€	86.3	51.5	€	11	2	9	17.3	7.6	1	10	9	56.8	60.4	8	2	10	47.2	47.1
-5	12	€	9.5	9.5	€	12	2	9	34.2	32.4	2	10	9	8.4	19.2	9	2	10	11.2	13.3
-4	12	€	13.6	21.8	€	13	2	9	32.8	32.8	3	10	9	10.2	3.0	10	2	10	11.5	12.6
-3	12	€	49.6	49.4	€	-2	3	5	€3.8	94.8	4	10	9	23.0	32.0	11	2	10	25.4	16.1
-2	12	€	12.5	4.5	€	-1	3	5	55.2	52.7	5	10	9	14.1	14.3	12	2	10	9.7	12.2
-1	12	€	16.6	16.2	€	0	3	5	38.7	34.8	6	10	9	45.1	42.2	-2	3	10	7.8	7.9
0	12	€	19.4	4.3	€	1	3	5	12.0	10.3	-10	11	9	50.6	51.2	0	3	10	83.8	79.0
1	12	€	8.8	8.8	€	2	3	5	7.7	0.7	-9	11	9	8.2	10.2	1	3	10	79.6	75.1
2	12	€	40.5	42.0	€	3	3	9	70.4	66.1	-8	11	9	13.1	18.7	2	3	10	49.9	47.6
3	12	€	17.2	15.0	€	4	3	9	131.3	126.8	-7	11	9	21.4	26.8	3	3	10	21.1	20.8
4	12	€	18.9	36.2	€	5	3	9	66.5	63.6	-6	11	9	70.5	76.6	4	3	10	50.1	50.9
5	12	€	32.6	34.8	€	6	3	9	60.4	59.3	-5	11	9	8.0	11.9	5	3	10	87.9	86.2
-12	13	€	31.1	34.7	€	7	3	9	105.2	104.3	-4	11	9	13.8	18.7	6	3	10	86.1	86.7
-11	13	€	41.0	41.0	€	8	3	9	40.4	39.7	-3	11	9	19.7	29.1	7	3	10	59.5	57.2
-10	13	€	99.1	100.5	€	9	3	9	91.5	90.0	-2	11	9	19.5	19.1	8	3	10	17.3	14.0
-9	13	€	20.5	21.9	€	10	3	9	40.8	38.0	-1	11	9	13.0	25.4	9	3	10	14.2	18.0
-8	13	€	15.1	5.8	€	11	3	9	36.4	0.9	0	11	9	85.6	86.8	10	3	10	14.7	25.0
-7	13	€	14.4	23.3	€	12	3	9	12.3	25.9	1	11	9	8.3	2.9	11	3	10	26.1	22.7
-6	13	€	12.9	5.1	€	-3	4	9	41.9	42.6	2	11	9	18.1	25.8	12	3	10	57.8	54.6
-5	13	€	40.8	35.2	€	-2	4	9	100.7	98.5	3	11	9	91.7	91.9	-3	4	10	28.9	24.3
-4	13	€	41.5	42.1	€	-1	4	9	32.5	33.2	4	11	9	32.2	34.9	-2	4	10	18.8	11.2
-3	13	€	29.5	27.9	€	0	4	9	112.7	112.0	5	11	9	52.5	53.9	-1	4	10	44.9	39.4
-2	13	€	48.1	47.0	€	1	4	9	24.0	25.8	-11	12	9	98.2	97.9	0	4	10	76.5	77.2
-1	13	€	35.4	38.8	€	2	4	9	54.8	57.3	-10	12	9	47.9	48.8	1	4	10	115.4	111.2
0	13	€	54.9	57.0	€	3	4	9	12.3	15.1	-9	12	9	24.4	28.1	2	4	10	125.9	121.7
1	13	€	8.3	3.3	€	4	4	9	67.0	66.2	-8	12	9	8.1	3.9	3	4	10	14.8	6.1
2	13	€	73.0	72.4	€	5	4	9	105.5	102.8	-7	12	9	18.3	18.2	4	4	10	17.1	3.8
3	13	€	8.6	6.8	€	6	4	9	102.3	102.4	-6	12	9	27.3	33.8	5	4	10	53.5	52.6
4	13	€	15.1	6.7	€	7	4	9	12.7	10.9	-5	12	9	38.3	41.1	6	4	10	17.8	23.5
-13	14	€	56.9	58.0	€	8	4	9	19.4	26.7	-4	12	9	33.9	34.4	7	4	10	11.7	0.5
-12	14	€	46.8	48.6	€	9	4	9	14.4	15.0	-3	12	9	17.1	16.7	8	4	10	10.3	6.9

-11	14	E	23.0	27.0	10	4	5	40.3	39.3	-2	12	9	20.0	20.3	9	4	10	16.4	16.3
-10	14	E	75.5	76.5	11	4	5	17.7	1.9	-1	12	9	9.5	11.4	10	4	10	60.1	58.9
-9	14	E	41.1	41.4	12	4	5	16.4	9.4	0	12	9	24.7	29.6	-4	5	10	19.3	24.2
-8	14	E	31.2	34.2	-4	5	9	74.1	76.8	1	12	9	92.7	92.8	-3	5	10	8.1	5.5
-7	14	E	18.5	8.6	-3	5	9	10.8	11.4	2	12	9	74.1	75.0	-2	5	10	38.0	38.2
-6	14	E	18.4	20.6	-2	5	9	93.6	92.3	3	12	9	18.9	18.3	-1	5	10	21.3	24.2
-5	14	E	15.8	14.6	-1	5	9	13.0	19.3	4	12	9	12.0	14.4	0	5	10	11.9	8.8
-4	14	E	17.0	19.8	0	5	9	57.3	57.9	-12	13	9	8.8	3.4	1	5	10	63.6	60.3
-3	14	E	30.1	22.4	1	5	9	10.0	9.5	-11	13	9	16.2	10.3	2	5	10	37.1	34.3
-2	14	E	26.1	27.7	2	5	9	30.7	30.6	-10	13	9	35.5	34.5	3	5	10	64.8	64.6
-1	14	E	17.2	14.0	3	5	9	21.0	21.2	-9	13	9	8.8	7.9	4	5	10	44.6	42.6
0	14	E	28.8	21.7	4	5	9	26.4	24.9	-8	13	9	47.6	53.6	5	5	10	14.4	18.1
1	14	E	19.5	7.9	5	5	9	65.5	63.0	-7	13	9	38.6	42.7	6	5	10	33.2	39.8
2	14	E	74.4	80.0	6	5	9	14.2	9.9	-6	13	9	51.7	51.1	7	5	10	22.8	22.1
-14	15	E	75.5	77.3	7	5	9	35.2	36.1	-5	13	9	59.4	61.0	8	5	10	22.9	24.6
-13	15	E	34.8	39.3	8	5	9	95.1	92.5	-4	13	9	52.6	57.2	9	5	10	16.2	1.1
-12	15	E	12.4	6.3	9	5	9	6.9	1.3	-3	13	9	16.4	19.4	10	5	10	50.9	46.9
-11	15	E	10.8	3.2	10	5	9	9.2	8.4	-2	13	9	68.9	69.2	-5	6	10	21.9	15.4
-10	15	E	53.9	51.2	11	5	9	30.6	22.6	-1	13	9	30.5	32.3	-4	6	10	34.4	32.0
-9	15	E	8.0	5.0	-5	6	9	85.8	90.9	0	13	9	13.8	15.7	-3	6	10	26.5	30.8
-8	15	E	25.4	29.9	-4	6	9	57.7	59.0	1	13	9	23.3	18.7	-2	6	10	90.4	87.9
-7	15	E	34.2	37.4	-3	6	9	62.0	65.5	2	13	9	20.4	15.0	-1	6	10	10.9	5.0
-6	15	E	26.3	27.9	-2	6	9	97.8	96.3	-13	14	9	45.8	45.6	0	6	10	87.3	87.6
-5	15	E	16.6	21.0	-1	6	9	23.6	24.5	-12	14	9	14.9	17.8	1	6	10	9.1	8.6
-4	15	E	61.4	62.3	0	6	9	47.4	47.3	-11	14	9	8.6	2.0	2	6	10	10.7	14.1
-3	15	E	25.2	24.7	1	6	9	72.2	74.0	-10	14	9	52.8	51.9	3	6	10	8.9	1.7
-2	15	E	39.4	34.1	2	6	9	117.1	114.0	-9	14	9	12.4	10.4	4	6	10	16.9	18.6
-1	15	E	73.5	71.4	3	6	9	16.2	21.4	-8	14	9	27.2	30.5	5	6	10	62.8	63.4
0	15	E	38.5	35.7	4	6	9	113.6	111.5	-7	14	9	17.7	25.4	6	6	10	18.3	28.2
-14	16	E	34.0	31.9	5	6	9	9.4	17.8	-6	14	9	52.9	56.9	7	6	10	10.3	8.7

ARMANGITE

SHEET NO. 4 PART 2

H	K	L	FC	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC	H	K	L	FO	FC
8	6	10	43.3	42.1	3	0	11	53.0	53.3	4	9	11	26.4	21.8	-2	7	12	21.3	27.0	-2	7	12	21.3	27.0
9	6	10	9.3	10.1	4	0	11	31.7	40.9	-9	10	11	37.0	40.2	-1	7	12	46.9	45.5	-1	7	12	46.9	45.5
-6	7	10	44.6	45.5	5	0	11	15.3	16.6	-8	10	11	35.3	33.2	0	7	12	72.7	72.5	0	7	12	72.7	72.5
-5	7	10	9.9	17.7	6	0	11	60.0	57.4	-7	10	11	32.5	35.1	1	7	12	19.3	28.0	1	7	12	19.3	28.0
-4	7	10	84.0	83.9	7	0	11	12.0	19.3	-6	10	11	72.9	77.1	2	7	12	32.8	31.0	2	7	12	32.8	31.0
-3	7	10	8.3	11.9	8	0	11	27.9	30.4	-5	10	11	12.0	3.1	3	7	12	24.4	25.9	3	7	12	24.4	25.9
-2	7	10	44.4	42.4	5	0	11	33.3	33.1	-4	10	11	40.3	40.9	4	7	12	9.4	5.0	4	7	12	9.4	5.0
-1	7	10	24.3	15.6	10	0	11	43.9	43.3	-3	10	11	41.0	41.0	-7	8	12	34.7	38.0	-7	8	12	34.7	38.0
0	7	10	14.9	4.9	11	0	11	15.9	20.1	-2	10	11	69.4	69.5	-6	8	12	9.3	16.4	-6	8	12	9.3	16.4
1	7	10	17.1	14.3	0	1	11	27.9	24.2	-1	10	11	13.8	10.8	-5	8	12	43.7	44.4	-5	8	12	43.7	44.4
2	7	10	13.5	4.7	1	1	11	40.8	40.5	0	10	11	94.8	92.6	-4	8	12	9.0	8.9	-4	8	12	9.0	8.9
3	7	10	37.7	36.0	2	1	11	34.8	32.3	1	10	11	20.6	1.8	-3	8	12	87.4	85.9	-3	8	12	87.4	85.9
4	7	10	94.0	53.1	2	1	11	6.3	10.9	2	10	11	9.1	15.0	-2	8	12	71.5	68.5	-2	8	12	71.5	68.5
5	7	10	43.9	44.5	3	1	11	43.8	44.1	3	10	11	18.3	10.6	-1	8	12	9.6	4.1	-1	8	12	9.6	4.1
6	7	10	14.0	41.1	4	1	11	70.4	69.7	-10	11	11	13.7	12.6	0	8	12	56.5	52.8	0	8	12	56.5	52.8
7	7	10	71.6	70.5	5	1	11	11.5	14.3	-9	11	11	38.9	38.6	1	8	12	14.5	6.8	1	8	12	14.5	6.8
8	7	10	51.3	45.2	6	1	11	64.8	82.8	-8	11	11	68.2	66.8	2	8	12	17.6	24.1	2	8	12	17.6	24.1
-7	8	10	130.5	128.7	7	1	11	30.9	30.8	-7	11	11	13.8	3.7	3	8	12	9.9	5.2	-7	8	10	130.5	128.7
-6	8	10	78.2	77.1	8	1	11	15.2	3.7	-6	11	11	46.3	47.9	-8	9	12	35.2	29.6	-8	9	12	35.2	29.6
-5	8	10	8.0	6.2	9	1	11	20.2	26.5	-5	11	11	23.8	26.6	-7	9	12	20.3	11.2	-7	9	12	20.3	11.2
-4	8	10	16.2	23.2	10	1	11	17.5	2.6	-4	11	11	47.9	48.9	-6	9	12	64.4	60.9	-6	9	12	64.4	60.9
-3	8	10	22.9	25.8	11	1	11	10.1	17.3	-3	11	11	15.6	4.6	-5	9	12	8.9	12.9	-5	9	12	8.9	12.9
-2	8	10	64.2	62.1	0	2	11	59.3	56.2	-2	11	11	12.5	1.7	-4	9	12	27.7	27.6	-4	9	12	27.7	27.6
-1	8	10	26.0	30.2	1	2	11	9.0	8.5	-1	11	11	12.1	22.3	-3	9	12	10.2	23.2	-3	9	12	10.2	23.2
0	8	10	51.2	52.7	2	2	11	64.2	62.1	0	11	11	11.8	4.8	-2	9	12	33.3	30.2	-2	9	12	33.3	30.2
1	8	10	30.0	30.7	3	2	11	49.1	49.4	1	11	11	20.5	2.7	-1	9	12	24.5	29.6	-1	9	12	24.5	29.6
2	8	10	17.8	15.6	4	2	11	47.4	45.0	-11	12	11	19.9	18.8	0	9	12	14.7	0.6	0	9	12	14.7	0.6
3	8	10	36.0	39.1	5	2	11	13.0	10.9	-10	12	11	21.3	20.9	1	9	12	35.2	37.2	1	9	12	35.2	37.2
4	8	10	19.3	8.8	6	2	11	1.3	26.4	-9	12	11	9.0	18.3	-9	10	12	15.0	2.7	-9	10	12	15.0	2.7
5	8	10	63.3	64.4	7	2	11	17.8	4.5	-8	12	11	20.1	14.2	-8	10	12	49.1	49.4	-8	10	12	49.1	49.4
6	8	10	74.3	74.1	8	2	11	29.3	22.1	-7	12	11	84.1	85.4	-7	10	12	35.3	30.6	-7	10	12	35.3	30.6
7	8	10	28.6	30.2	9	2	11	47.9	42.0	-6	12	11	40.8	43.0	-6	10	12	32.0	37.2	-6	10	12	32.0	37.2
-8	9	10	27.3	22.6	10	2	11	9.6	18.8	-5	12	11	8.9	11.5	-5	10	12	28.9	31.4	-5	10	12	28.9	31.4
-7	9	10	44.7	44.8	-2	3	11	45.8	49.2	-4	12	11	36.8	40.6	-4	10	12	66.7	70.3	-4	10	12	66.7	70.3
-6	9	10	18.5	12.0	-1	3	11	13.5	14.7	-3	12	11	11.4	0.3	-3	10	12	14.3	1.1	-3	10	12	14.3	1.1
-5	9	10	40.8	40.0	0	3	11	122.1	118.5	-2	12	11	13.7	10.6	-2	10	12	11.7	12.5	-2	10	12	11.7	12.5
-4	9	10	32.1	38.0	1	3	11	20.0	23.0	-1	12	11	9.4	22.9	-1	10	12	9.6	12.5	-1	10	12	9.6	12.5
-3	9	10	23.8	25.6	2	3	11	53.2	52.2	-10	13	11	8.9	94.8	-7	11	12	45.2	49.4	-7	11	12	45.2	49.4
-2	9	10	82.0	82.4	3	3	11	11.1	2.0	-9	13	11	8.9	4.3	-8	11	12	31.2	29.4	-8	11	12	31.2	29.4
-1	9	10	12.5	11.6	4	3	11	12.8	12.5	-8	13	11	8.9	2.7	-6	11	12	28.8	34.4	-6	11	12	28.8	34.4
0	9	10	89.8	89.1	5	3	11	35.1	31.5	-7	13	11	9.0	23.0	-5	11	12	10.8	2.2	-5	11	12	10.8	2.2
1	9	10	15.7	4.5	6	3	11	12.5	8.3	-6	13	11	16.7	20.7	-4	11	12	23.9	17.7	-4	11	12	23.9	17.7
2	9	10	53.4	58.0	7	3	11	66.9	58.7	-5	13	11	9.1	0.8	-3	11	12	22.9	18.2	-3	11	12	22.9	18.2



3	5	10	14.7	20.5	8	3	11	83.7	79.0	-4	13	11	12.4	5.9	0	0	13	100.8	103.6
4	9	10	13.7	7.4	9	3	11	42.5	39.9	-3	13	11	29.0	26.1	1	0	13	67.2	69.4
5	9	10	33.1	29.0	10	3	11	53.1	50.8	0	0	12	41.4	42.7	2	0	13	42.1	43.7
6	9	10	11.1	19.1	-3	4	11	84.0	81.9	1	0	12	17.9	17.7	3	0	13	18.5	2.0
-9	10	10	70.0	66.7	-2	4	11	96.2	93.5	2	0	12	64.7	66.9	4	0	13	87.5	85.5
-8	10	10	30.7	32.1	-1	4	11	9.0	4.5	3	0	12	10.7	3.4	5	0	13	25.7	30.6
-7	10	10	27.7	26.2	0	4	11	61.9	59.5	4	0	12	86.2	87.8	6	0	13	48.6	52.9
-6	10	10	40.4	41.2	1	4	11	50.4	50.9	5	0	12	42.8	45.9	7	0	13	14.5	13.0
-5	10	10	41.9	41.9	2	4	11	24.0	32.1	6	0	12	9.1	3.6	0	1	13	14.8	10.2
-4	10	10	9.2	2.3	3	4	11	12.9	13.5	7	0	12	19.3	21.4	1	1	13	9.2	3.8
-3	10	10	42.5	42.9	4	4	11	41.5	44.9	8	0	12	40.5	37.4	2	1	13	29.7	31.5
-2	10	10	46.0	42.8	5	4	11	28.0	30.9	9	0	12	36.4	42.9	3	1	13	10.0	12.4
-1	10	10	8.8	7.5	6	4	11	52.3	54.5	0	1	12	74.2	67.0	4	1	13	21.9	16.3
0	10	10	8.6	18.6	7	4	11	51.6	48.8	1	1	12	35.0	37.8	5	1	13	18.5	4.1
1	10	10	40.3	29.8	8	4	11	36.3	38.1	2	1	12	17.6	14.4	6	1	13	25.5	24.7
2	10	10	62.9	64.9	5	4	11	11.7	11.3	3	1	12	111.3	110.9	-1	2	13	30.2	26.3
3	10	10	18.1	10.3	-4	5	11	50.1	51.0	4	1	12	15.9	12.5	0	2	13	33.9	30.6
4	10	10	82.9	83.3	-3	5	11	58.5	62.5	5	1	12	21.9	19.1	1	2	13	55.2	48.8
5	10	10	15.3	16.4	-2	5	11	59.4	57.6	6	1	12	31.9	34.0	2	2	13	30.9	40.7
-10	11	10	49.0	48.2	-1	5	11	97.4	94.7	7	1	12	13.9	3.1	3	2	13	20.2	22.5
-9	11	10	8.6	19.0	0	5	11	12.1	2.4	8	1	12	15.7	17.4	4	2	13	64.6	62.7
-8	11	10	15.9	15.6	1	5	11	25.7	28.9	9	1	12	15.7	17.4	5	2	13	36.5	36.4
-7	11	10	42.2	39.1	2	5	11	77.7	74.8	-1	2	12	31.3	25.6	6	2	13	27.3	18.5
-6	11	10	16.2	6.3	3	5	11	13.3	11.1	0	2	12	62.7	59.1	-2	3	13	10.4	2.6
-5	11	10	42.1	45.9	4	5	11	49.4	49.6	1	2	12	9.4	8.5	-1	3	13	42.1	47.8
-4	11	10	101.6	101.6	5	5	11	13.0	5.3	2	2	12	47.5	46.6	0	3	13	29.9	28.3
-3	11	10	10.4	8.3	6	5	11	47.8	43.3	3	2	12	13.8	11.9	1	3	13	52.8	52.4
-2	11	10	37.3	30.7	7	5	11	23.8	25.4	4	2	12	35.8	34.0	2	3	13	19.1	6.0
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0	11	10	50.1	51.5	-5	6	11	41.5	43.1	6	2	12	42.3	40.2	4	3	13	51.8	46.8
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3	11	10	32.8	37.4	-2	6	11	15.8	1.7	-2	3	12	53.7	53.0	-2	4	13	20.6	12.1
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-8	12	10	36.2	39.3	2	6	11	24.7	36.9	2	3	12	18.3	2.1	2	4	13	62.8	62.1
-7	12	10	39.0	40.4	3	6	11	14.1	7.0	3	3	12	56.1	51.5	3	4	13	29.3	19.2
-6	12	10	8.3	4.9	4	6	11	39.9	39.3	4	3	12	72.2	64.3	4	4	13	45.9	46.8
-5	12	10	8.5	2.6	5	6	11	35.1	37.8	5	3	12	68.5	64.5	-4	5	13	9.5	5.1
-4	12	10	19.9	16.2	6	6	11	36.8	35.3	6	3	12	45.7	42.5	-3	5	13	17.4	11.2
-3	12	10	118.0	115.0	7	6	11	9.3	5.2	7	3	12	64.9	61.2	-2	5	13	23.9	27.3
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1	12	10	20.1	28.2	-3	7	11	25.4	28.3	-1	4	12	15.0	16.2	2	5	13	10.0	10.6
2	12	10	12.4	3.8	-2	7	11	10.6	1.3	0	4	12	87.7	85.8	3	5	13	58.4	55.7
-12	13	10	59.3	61.2	-1	7	11	64.2	65.1	-5	4	12	48.1	46.2	-5	6	13	16.1	16.2
-11	13	10	49.0	52.1	0	7	11	77.9	75.8	-4	4	12	34.0	33.8	-4	6	13	45.6	42.0
-10	13	10	9.8	15.6	1	7	11	56.3	56.5	-3	4	12	58.0	52.4	-3	6	13	46.9	42.8
-9	13	10	32.7	36.4	2	7	11	8.9	5.0	-2	4	12	26.4	22.6	-2	6	13	43.3	42.7

-8	13	10	23.9	24.5	3	7	11	72.9	71.5	5	4	12	31.4	31.2	-1	6	13	14.5	2.0
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-4	14	10	65.3	67.2	5	8	11	47.1	44.7	-2	6	12	60.2	58.4	1	8	14	20.3	13.9
-3	14	10	33.1	33.4	-7	9	11	9.2	19.6	-1	6	12	13.0	10.6	2	8	14	9.4	15.0
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-9	15	10	17.9	14.4	-4	9	11	38.8	41.9	2	6	12	17.3	17.3	1	1	14	28.0	23.9
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-6	15	10	27.0	22.9	-1	9	11	11.2	2.7	5	6	12	9.0	1.8	1	2	14	10.7	12.1
-5	15	10	10.7	3.5	0	9	11	31.5	36.1	-6	7	12	68.0	65.3	-2	3	14	21.5	24.9
0	0	11	114.7	125.5	1	9	11	31.4	27.7	-5	7	12	27.1	29.9	-1	3	14	19.2	3.6
1	0	11	10.8	5.8	2	9	11	18.7	23.8	-4	7	12	22.4	28.2	0	3	14	73.0	69.7
2	0	11	42.4	46.3	3	9	11			-3	7	12							